

COUNTY BOROUGH OF PRESTON.



REPORT

OF THE

Medical Officer of Health

ON THE HEALTH OF THE BOROUGH

FOR THE YEAR

1920.

PRESTON :

R. SEED & SONS, LUNE STREET AND GUILDHALL STREET.

1921.



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HEALTH COMMITTEE, 1920-21.

The MAYOR.

Alderman H. CARTMELL.

Alderman J. ORMEROD.

Alderman J. C. HAMILTON.

Alderman SIR HARRY CARTMELL.

Councillor T. KING.

Councillor W. L. KNIGHT.

Councillor J. HUNT.

Councillor H. FAZACKERLEY.

Councillor E. C. C. FIRTH.

Councillor R. DURHAM, (Vice-Chairman).

Councillor T. SNELHAM.

Councillor T. H. C. DERHAM, (Chairman).

Councillor W. H. BARNETT.

Councillor J. HERBERT.

Councillor W. H. FRANCIS.

Councillor MRS. PIMBLETT.

Report of the Medical Officer of Health.

To the Chairman and Members of the Health Committee.

MRS. PIMBLETT AND GENTLEMEN,

In submitting the Annual Report on the Health of Preston during the year 1920 I take this opportunity to refer briefly to the more outstanding features.

In common with other communities we find ourselves at the end of the war period with energies and resources depreciated and, owing to our concentration on efforts directly related to the conflict, with vast arrears of work to be overtaken.

In some departments of our work such as Maternity and Child Welfare we are marking time, content perforce to perfect the existing organisation, leaving those extensions of the work which seem to offer the most profitable lines of advance, such as the provision of a Maternity Hospital and a scheme whereby efficient and adequate medical, midwifery and home help shall be available for every lying-in woman, to future years.

In the treatment of tuberculosis retrograde steps in the temporary abandonment of the Sanatorium Scheme and the failure to establish a strong After-Care Committee, both on financial grounds, have been taken. In the treatment of Venereal Diseases a definite advance will be effected when the new Scheme approved by your Committee comes into operation.

On that part of Public Health Administration which deals directly with the environment of the people, and therefore on the most vital point in our campaign against the forces inimical to the Public Health, it is necessary to report that in 1920 we have definitely lost ground. The Department has been able quite successfully to

cope with those defects which are immediately apparent, such as defective drains, sanitary appliances and other defects which cause nuisances to arise, but it has had to watch with folded hands the steady progress of deterioration in property unchecked by main repairs. Towards the end of the year, however, a definite improvement was observed which has been maintained during the early part of 1921. Owing to financial stringency the Government have had recently to abandon their Housing Schemes, and it is unlikely that private enterprise will at least in the near future be able to supply our needs. In the meantime we have a very large proportion of our people unsuitably housed. Overcrowding, which will be adversely affected by the improvement in the Public Health, as revealed by Vital Statistics, cannot be dealt with. Houses which, by reason of age and condition, should be swept away must remain whilst others structurally sound but lacking in those amenities which go to raise the standard of living in the immediate sense, remain unaltered.

For the rest, the absence of epidemics, good climatic conditions and an improvement in Public knowledge have each contributed to a favourable year.

In conclusion I tender my thanks to the Chairman and Members of your Committee for their sympathetic consideration of suggestions put forward and their valuable assistance in carrying them out.

I am,

Your obedient Servant,

F. A. SHARPE,

Medical Officer of Health.

I.—Natural and Social Conditions of the District.

PHYSICAL FEATURES AND GENERAL CHARACTER OF THE DISTRICT.

Abstract from “*Memoirs of the Geological Survey—England and Wales, 1875.*”

“The country about the Estuary of the Ribble is a portion of the plain which forms the Lancashire Seaboard. It is composed of soft Triassic and Permian rocks for the most part concealed by drift, and bounded on the East by a large N.N.E. fault which brings up the Carboniferous rocks.”

“The continuity of the plain is broken by the valley of the Ribble and by the narrow valleys of the various small brooks running into the river as well as by the shallower valleys of its larger tributaries the Darwen and Douglas or Astland. West of the Douglas the country is very low, often indeed beneath the sea level, and is a continuation of the great peat moss plain which has been described . . . as extending between Liverpool and Southport. The undulating plain of glacial drift above has an average elevation of 120 feet above the sea, towards which it slopes at a very low angle, terminating abruptly at Blackpool in a line of cliffs above 70 feet in height.”

“In the Preston 6 inch map the middle drift forms both sides of a valley running up from the Wheatsheaf Inn to Deepdale, but before reaching this point it expands occupying the surface of the plain from Gallows Hill, Southward, in almost one continuous sheet to Avenham, dipping beneath the Upper Boulder clay to the West and to the East, the Western Boundary running by Maudlands Bridge Lane, between Friargate and Lune Street, across the middle of Fishergate, the North side of Winckley Square, top of Avenham to Bank Parade; thence it turns to the North-East to Church Street, whence it turns to the North, running to St. Thomas’ Church to the North of which it joins that portion which runs up by Deepdale. The following buildings in Preston are built upon the Middle Drift:—The Town Hall, Avenham Institute, Dr. Shepherd’s Library, St. John’s, St. Peter’s, St. Thomas’ Churches and the *Roman Catholic Cathedral, with a thin bed of Upper Boulder clay intervening. The Middle Drift dips suddenly Westward on the West side of the tract described above, re-appearing near the foot of the bluff forming the margin of the Ribble Valley, running from Tulketh Hall, by Stanley Terrace, Avenham Park, to Fishwick where the bluff has been cut back into the remarkable semi-circular cliff by the action of the Ribble; between this outcrop and the Middle Drift at the top of the plain and the top and edge of the bluff there is generally an overlap of Upper Till, in fact, at Avenham Park

* Probably English Martyrs’ Church.

it descends nearly to the alluvium below. Near the Wheatsheaf Inn the following artificial section of the bluff has been exposed and the sand has been recently cut into in the cliff below Stanley Terrace.

Upper Till

Boulder Clay	8 feet.
Sand	1 foot.
Boulder Clay	3 feet.

Middle Drift

Sand	2 feet.
Loam	2 feet.
Sand	3 feet.
Clay	1 foot.
Sand	13 feet.

Lower Boulder Clay	12 feet.
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The Middle Drift, capped by boulder clay is well seen in the sand pit on the South side of the Canal near Tulketh Factory, the clay being from 6 to 22 feet thick, resting on at least 30 feet of sand which is slightly current bedded in a S.S.E. direction and traversed by hard seams of consolidated sand running in sheets about 4 inches in thickness; on the opposite side of the Canal, near Brookhouse Mill, the sand crops to the surface; a few yards to the South-East 10 feet of sand is visible, capped by 4 feet of clay; still further to the South the latter has thickened to 10 feet and an additional 10 feet of sand is seen in a well. On the opposite side of the Fylde Road, near the site of St. Mary Magdalen's Church, the following section occurs:—

Vegetable Mould.

Upper Boulder Clay.

Sand.

Gravel

Yellow Sand

} Middle Drift.

At Deepdale, in a pit to the N.E. of the Station, the following section occurs:—

Upper Till	... Red stiff clay, with erratic boulders	6 feet.
Middle Drift	... Yellow Sand, the upper surface undulating....	4 feet.
	Shingle	3 feet.
	Soft Yellow Sand	27 feet.
	Loam	0½ feet.
	Sand	6½ feet.
	Loam (used for brass casting)	0¾ feet.
	Sand	+

. . . On the North bank of the Moor Brook, the following is seen at a point opposite Brookfield Mill :—

Middle Drift	...	Sand	1 foot.
		Clay, thickening to the West	3 to 4 feet.
		Laminated fine yellow Sand, with fragments of Shells	24 + feet.

. . . The following is a section exposed in digging a gasometer bed in 1869 at Ribbleton Lane for the New Gas Works :—

Upper Till	...	Red Boulder Clay with erratic Pebbles	12 feet.
		Wet Loam	4 feet.
		Red Clay, in parts brown with few stones.....	9 feet.
Middle Drift	...	Sand, wet running	5 feet."

In general the site of the Town, its proximity to the sea, the nature of the sub-soil, and the climatic conditions make Preston a naturally healthy and invigorating district.

Commanding as it does the Western avenue of approach from Scotland, and the gap in the Pennines permitting access from East to West, the strategic importance of the town has been recognised from Roman times. There is good evidence that the first Charter was given by Henry I. in 1100, and Royal Charters have since been granted on a number of occasions between the years 1179 and 1828.

Although the cotton industry had been carried on for many years prior to the invention of the spinning and weaving machines, the town did not become industrialized until the end of the 18th Century. The erection of Horrocks' Yellow Factory in 1791 (A. J. Berry, History of Preston) has been followed by the building of many others until it is now the principal industry.

As a rule employment is good and the majority of the workers are skilled. A prominent feature is the employment of women and young persons in the Textile industry. As far as the Public Health is concerned the effect of the employment of the former is reflected in the higher rate of mortality among infants and of the latter in the loss of an educational year.

VITAL STATISTICS.

The principal points in the vital statistics, which are set out in detail below, are as follows :—

Total Population	122,133
Civilian Population	121,950
No. of Births	2,984
Rate per 1,000 living	24.43
No. of Deaths	1,659
Interments in the Borough	1,750
Death Rate per 1,000 living	13.60
Deaths of Infants per 1,000 Births	101
Zymotic Death Rate	0.57
Phthisis Death Rate	0.91

Other figures of interest are :—

Area of Borough	4,029 acres.
No. of Dwelling Houses	27,869
No. of Dwelling Houses suitable for occupation by persons of the working classes	24,800
Rateable Value	£516,984
Rates—Borough	9s. 2d.
District	5s. 10s.
	————— 15s.
Product of 1d. Rate—Borough Rate	£1,875
General District Rate	£1,810

The population of the Borough at the Census of 1911 was 117,113 and the estimated population for 1921 made by the Registrar-General is 121,950 and 122,133 for the purposes of the Death Rate and Birth Rate respectively.

The number of births registered is 2,984 and the rate per 1,000 living was 24.43. The net deaths numbered 1,659 of which 301 were those of infants. The Death Rate per 1,000 living was 13.60.

The statistics relating to Births and Infant deaths are treated in Section V. Maternity and Child Welfare, on page 70.

The number of deaths and the death rate were the lowest yet recorded.

The population received a natural increase of 1,325, a figure which has been exceeded only nine times in the past 70 years. Ten of the 20 neighbouring County Boroughs, in which the rates varied from 9.5 in Wallasey to over 16 in Liverpool and Wigan, had more favourable death rates. The rate in England and Wales was 12.4 and in the 96 Great Towns 12.5. The distribution of deaths in the various Wards of the Town is shewn as follows :—

TABLE IA.

Ward.		Civilian Population.		Number of deaths.		Rate per 1000 living.
St. John's	.....	12380	...	186	...	15.02
Avenham	.....	7500	...	91	...	12.13
Christ Church	.....	8740	...	126	...	14.42
Ashton	.....	9210	...	140	...	15.20
Maudland	.....	9940	...	122	...	12.27
St. Peter's	.....	11980	...	166	...	13.86
Moor Brook	.....	9520	...	145	...	15.23
Park	.....	15030	...	178	...	11.84
Trinity	.....	10130	...	155	...	15.30
Deepdale	.....	10570	...	140	...	13.24
Ribbleton	.....	9240	...	96	...	10.39
Fishwick	.....	7710	...	100	...	12.97
Unknown	.....	—	...	14	...	—
		—————		—————		—————
Total	.....	121950	...	1659	...	13.60
		—————		—————		—————

The principal causes of death as revealed in Table Ic., page 13, are Pulmonary Tuberculosis, Cancer, Organic Heart Disease, Bronchitis and Pneumonia. Although the rate from Pulmonary Tuberculosis is steadily declining it still accounts for 66 deaths out of every 1,000, as compared with 72 in England and Wales. The proportions incurred by the other principal causes in comparison with England and Wales are as follows :—Cancer, 76 — 94; Organic Heart Disease, 109 — 105; Bronchitis, 92 — 82; Pneumonia, 92 — 80. The figures for England and Wales are taken from Sir George Newman's Report to the Minister of Health. It is of interest to note that had the Borough experienced the same Infantile Mortality and General Death Rate as the Country as a whole, 147 fewer persons, including 63 infants, would have died.

TABLE IB.

Vital Statistics of whole District during 1920 and previous nine years.

YEAR.	Total Population	BIRTHS. Nett.		CIVILIAN POPULA- TION.	TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFERABLE DEATHS.		NETT DEATHS BELONGING TO THE DISTRICT.			
									Und'r 1 yr. of age		At all Ages.	
		Num- ber.	Rate.		Num- ber.	Rate.	of Non- resid'ts regis- tered in the district	of Resi- dents not regist'd in the district	Num- ber.	Rate per 1,000 Nett Births.	Num- ber	Rate.
1911	117,216	2726	23.25		1817	15.50	45	212	473	173	1984	16.92
1912	117,630	2753	23.40		1797	15.28	32	207	342	124	1972	16.76
1913	118,070	2888	23.93		1871	15.55	39	211	462	160	2043	16.98
1914	118,514	2841	23.97		1681	14.18	58	250	401	141	1873	15.80
1915	118,118	2546	21.48	111936	1878	16.78	50	258	395	155	2086	18.63
1916	119,611	2315	19.36	109935	1581	14.39	46	239	254	109	1774	16.14
1917	118,993	2019	16.96	106747	1461	13.69	57	241	255	124	1660	15.46
1918	118,595	1906	16.07	105845	1778	16.79	66	232	213	113	1944	18.36
1919	122,168	2086	17.45	117277	1619	13.55	66	207	225	110	1760	14.72
1920	122,133	2984	24.43	121950	1539	12.57	83	203	301	101	1659	13.60

Total population at all ages 117,113

Number of inhabited houses 26,066

Area of District in acres (Land
and Inland Water)..... } 4,029

Average number of persons per house. 4.49

} At Census
of 1911.

TABLE Ic.

Deaths registered during the year 1920, classified according to Age and Cause of Death.

CAUSES OF DEATH.	Nett Deaths at the subjoined ages of Residents whether occurring within or without the District.									Total Deaths whether of Residents or Non-residents in Institutions in the Borough.
	All Ages.	Under 1 year.	1 and under 2 years.	2 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 years and upwards.	
All Causes { Certified	1622	292	48	53	64	72	222	399	472	
{ Uncertified	37	9	...	...	...	...	5	10	13	
1. Enteric Fever	1	...	...	...	...	...	1	...	...	...
2. Small Pox .....	...	...	...	...	...	...	...	...	...	...
3. Measles	14	2	4	5	3	...	...	...	...	...
4. Scarlet Fever	2	...	...	2	...	...	...	...	...	...
5. Whooping Cough	10	7	2	1	...	...	...	...	...	1
6. Diphtheria and Croup	13	1	3	3	6	...	...	...	...	7
7. Influenza	37	1	...	2	4	4	11	7	8	...
8. Erysipelas .....	...	...	...	...	...	...	...	...	...	...
9. Pulmonary Tuberculosis	111	3	3	...	6	27	41	27	4	13
10. Tuberculous Meningitis	18	...	2	10	4	...	2	...	...	...
11. Other Tubercular Diseases ...	29	5	2	5	5	...	6	2	4	2
12. Cancer, malignant disease ...	127	...	...	1	...	4	14	63	45	12
13. Rheumatic Fever	9	...	...	...	2	1	4	2	...	1
14. Meningitis	9	2	...	1	2	3	...	1	...	...
15. Organic Heart Disease	182	...	...	...	5	5	32	63	77	7
16. Bronchitis	154	28	7	3	1	...	5	35	75	5
17. Pneumonia (all forms)	153	28	16	5	7	5	17	44	31	9
18. Other Respiratory Diseases.	20	...	2	1	...	1	5	5	6	1
19. Diarrhoea, etc.	30	16	3	3	...	...	...	6	2	...
20. Appendicitis and Typhlitis ...	11	...	...	1	3	3	2	2	...	8
21. Cirrhosis of Liver	4	...	...	...	...	...	1	2	1	1
21a. Alcoholism	1	...	...	...	...	...	...	1	...	1
22. Nephritis & Bright's Disease	33	...	...	...	1	1	7	15	9	4
23. Puerperal Fever	9	...	...	...	...	1	8	...	...	3
24. Other Accidents and Diseases of Pregnancy and Parturition	13	...	...	...	...	2	11	...	...	4
25. Congenital Debility and Malformation (including Premature Birth)	132	131	...	...	...	1	...	...	...	5
26. Violence, apart from Suicide.	50	6	1	1	10	4	8	10	10	38
27. Suicide	9	...	...	...	...	...	4	4	1	...
28. Other Defined Diseases	462	69	3	9	5	10	46	114	206	58
29. Causes ill-defined or unknown	16	2	...	...	...	...	2	6	6	2
Totals	1659	301	48	53	64	72	227	409	485	182

TABLE ID.

Birth Rate, Death Rate, and Analysis of Mortality during the Year 1920.

(Provisional figures. Provisional populations estimated to the middle of 1920 have been used for the purposes of this Table. The mortality rates refer to the whole population as regards England and Wales, but only to civilians as regards London and the groups of towns.)

This Table, with the exception of the line relating to the Borough, has been supplied by the Registrar-General:—

	BIRTH- RATE PER 1000	ANNUAL DEATH RATE PER 1,000 POPULATION									RATE PER 1,000 BIRTHS		PERCENTAGE OF TOTAL DEATHS			
		All Causes	Enteric Fever	Small Pox	Measles	Scarlet Fever	Whooping Cough	Diphtheria	Influenza	Violence	Diarrhoea and Enteritis (under 2 years)	Total Deaths under One Year	Deaths in Public Institutions	Certified Causes of Death	Inquest Cases	Uncertified Causes of Death
England and Wales...	25·4	12·4	0·01	0·00	0·19	0·04	0·11	0·15	0·28	0·48	8·3	80	24·3	92·2	6·6	1·2
96 Great Town, including London (Census Populations exceeding 50,000)	26·2	12·5	0·01	0·00	0·22	0·04	0·14	0·16	0·31	0·43	10·4	85	31·3	92·2	7·1	0·7
148 Smaller Towns (Census Populations 20,000—50,000)	24·9	11·3	0·02	0·00	0·19	0·03	0·10	0·14	0·27	0·38	7·8	80	16·5	93·2	5·3	1·5
London ...	26·5	12·4	0·01	0·00	0·22	0·05	0·17	0·22	0·30	0·47	9·5	75	46·8	91·2	8·6	0·2
County Borough of Preston ...	24·43	13·60	0·003	0·00	0·11	0·016	0·03	0·10	0·46	0·43	8·42	101	18·7	93·5	4·3	2·2

**The Estimated Population, Number of Births and Deaths, Rates per thousand,
and natural increase within the Borough, for each Year since 1850.**

Years.	Estimated Population.	No. of Deaths.	Death Rate per 1,000.	No. of Births.	Birth Rate per 1,000.	Natural Increase.
1850	67,000	1745	25.81	2649	39.19	904
1851	69,450	2241	32.26	2803	40.36	562
1852	70,850	2284	32.23	2998	42.31	714
1853	72,250	2346	32.47	3072	42.51	726
1854	73,600	2013	27.35	3037	41.26	1024
1855	75,000	2557	34.10	3071	40.95	514
1856	76,400	2251	29.46	3151	41.24	900
1857	77,800	2131	27.39	3286	42.24	1155
1858	79,200	2545	32.13	3082	38.91	537
1859	80,600	2111	26.19	3399	42.17	1288
1860	82,000	2236	27.27	3381	41.23	1145
1861	82,985	2585	31.15	3626	43.69	1041
1862	83,231	2411	28.97	3522	42.32	1111
1863	83,477	2142	25.66	3388	40.57	1246
1864	83,686	2432	29.06	3422	40.89	990
1865	83,932	2708	32.26	3338	39.77	630
1866	84,178	2854	33.90	3535	41.99	681
1867	84,424	2608	30.89	3732	44.20	1124
1868	84,670	2798	33.04	3710	43.82	912
1869	84,916	2248	26.47	3434	40.44	1186
1870	85,162	2406	28.25	3486	40.93	1080
1871	85,427	2541	29.75	3438	40.24	897
1872	85,654	2294	26.78	3704	43.24	1410
1873	86,000	2899	33.71	3558	41.37	659
1874	86,000	2962	34.44	3582	41.65	620
1875	86,000	2581	30.01	3499	40.68	918
1876	86,600	2331	26.92	3623	41.84	1292
1877	87,000	2336	26.85	3601	41.39	1265
1878	87,300	2502	28.66	3697	42.35	1195
1879	87,600	2395	27.34	3403	38.83	1068
1880	88,000	2425	27.35	3475	39.49	1050
1881	96,524	2044	21.17	3489	36.14	1445
1882	97,656	2511	25.71	3785	38.76	1214
1883	98,564	2345	23.79	3576	36.28	1231
1884	99,481	2540	25.53	3745	37.64	1205
1885	100,406	2563	25.52	3868	38.52	1305
1886	101,340	2769	27.32	3961	39.08	1192
1887	102,283	2703	26.42	3870	37.83	1167
1888	103,234	2326	22.53	3823	37.03	1497
1889	104,194	2019	28.97	3912	37.63	902
1890	105,163	2726	25.92	3718	35.35	992
1891	107,864	2807	26.02	3830	35.50	1023
1892	109,038	2481	22.75	3686	33.80	1205
1893	110,225	2753	24.97	3809	34.55	1056
1894	111,425	2186	19.61	3545	31.81	1359
1895	112,638	2528	22.44	3702	32.95	1174
1896	113,864	2191	19.24	3673	32.25	1482
1897	115,103	2687	23.34	3687	32.03	1000
1898	116,356	2107	18.10	3559	30.58	1452
1899	117,622	2492	21.18	3492	29.68	1000
1900	118,902	2636	22.16	3410	28.67	774
1901	113,117	2213	19.56	3418	30.21	1205
1902	113,766	1998	17.56	3278	28.81	1280
1903	114,404	1955	17.08	3453	30.18	1498
1904	115,055	2091	17.83	3314	28.26	1223
1905	115,721	1906	16.47	3259	28.16	1353
1906	116,399	2065	17.74	3317	28.49	1252
1907	117,093	2003	17.10	3124	26.68	1121
1908	117,799	1975	16.45	3309	27.56	1334
1909	118,519	1721	14.52	3027	25.54	1306
1910	119,253	1758	14.74	2812	23.58	1054
1911	117,216	1817	15.50	2726	23.25	909
1912	117,630	1797	15.28	2724	23.16	927
1913	118,070	1871	15.55	2864	23.80	993
1914	118,514	1681	14.18	2818	23.78	1137
1915	111,936	1878	16.78	2519	21.25	641
1916	109,935	1581	14.39	2293	19.17	712
1917	106,747	1461	13.69	1998	16.80	537
1918	105,845	1778	16.79	1935	16.31	157
1919	117,277	1619	13.55	2158	18.05	539
1920	121,950	1539	12.57	2984	24.43	1445

TABLE IF.

Birth Rate, Death Rate, and Analysis of Zymotic Death Rate in 20 Lancashire and Cheshire Towns for the year 1920, compiled from the Registrar-General's Returns.

NAME OF TOWN.	Estimated Civilian population to middle of 1920 (provis'nal)	Birth Rate.	Re- corded Death Rate.	En- teric Fever.	Small Pox.	Meas- les.	Scarlet Fever.	Wh'p- ing Cough.	Diph- theria.	Diarr- hoea & Enter itis under 2years	Deaths under 1 year to 1,000 Births.
Stockport	130,635	21.9	12.9	0.01	0.00	0.32	0.05	0.21	0.23	7.7	95
Birkenhead	153,951	27.8	13.0	0.01	0.00	0.19	0.02	0.30	0.11	17.1	101
Wallasey	99,226	18.4	9.5	0.02	0.00	0.05	0.00	0.10	0.05	7.8	68
Liverpool	803,452	31.1	16.3	0.01	0.01	0.49	0.09	0.29	0.24	18.1	111
Bolton	184,533	22.6	13.3	0.04	0.00	0.15	0.01	0.19	0.19	10.0	73
Manchester	770,579	22.9	13.3	0.02	0.00	0.28	0.05	0.11	0.09	12.1	93
Salford	235,239	26.6	13.1	0.06	0.00	0.13	0.07	0.13	0.15	14.2	96
Oldham	143,154	23.2	15.2	0.01	0.00	0.04	0.04	0.11	0.12	11.3	107
Preston	121,950	24.4	13.6	0.01	0.00	0.10	0.03	0.09	0.11	8.4	101
Burnley	105,030	23.3	11.7	0.03	0.00	0.07	0.03	0.01	0.07	13.0	126
Blackburn	131,012	21.5	13.9	0.00	0.00	0.17	0.02	0.01	0.07	12.1	110
Bootle	80,029	28.3	14.0	0.00	0.12	0.42	0.14	0.23	0.42	9.2	94
St. Helens	104,822	30.9	13.6	0.00	0.00	0.57	0.07	0.07	0.13	11.9	115
Southport	72,939	17.1	12.8	0.01	0.00	0.01	0.00	0.04	0.00	4.8	50
Wigan	90,866	30.1	16.4	0.03	0.00	0.18	0.01	0.09	0.14	15.3	129
Warrington	77,939	28.9	12.1	0.00	0.00	0.25	0.02	0.06	0.09	13.6	89
Bury	56,410	19.8	14.4	0.00	0.00	0.11	0.00	0.16	0.07	5.5	92
Rochdale	93,639	20.3	13.6	0.04	0.00	0.06	0.03	0.12	0.08	5.7	93
Blackpool	70,545	16.7	13.9	0.00	0.00	0.06	0.02	0.00	0.16	3.3	68
Barrow-in-Furness.	76,561	25.5	11.7	0.02	0.00	0.23	0.00	0.15	0.02	5.9	76

THE PRESTON ROYAL INFIRMARY.

Mr. John Gibson, the Secretary, has supplied the following information :—

The Preston and County of Lancaster Queen Victoria Royal Infirmary was founded in 1866, and was opened in the year 1870 with 24 beds, provision being made for 76 with balcony accommodation in addition. In 1876 Fever Wards were erected, but these are now used for the treatment of Children, Ophthalmic, Aural and Medical Cases. The Nurses' Home and Out-patient Department were erected in 1903, when the Infirmary was thoroughly modernised and brought up to date. In 1903, an Operating Unit was erected through the munificence of Sir Charles Brown. The Infirmary is now a very well equipped Hospital.

The accommodation now consists of 58 beds for male medical and surgical cases, 47 for female medical and surgical cases, 31 for children and 17 for ophthalmic, aural, etc. cases. An additional Ward for medical cases, with 19 beds is to be opened shortly, whilst Lostock Hall, recently given by Messrs. Geo. & R. Dewhurst's to the Infirmary for use as a Convalescent Hospital, will be opened about September next, to accommodate 50 patients. The Infirmary has special Clinics for Eye, Ear, Nose and Throat complaints, X-Ray treatment and Radiographs, and Orthopaedic Department for Massage and Electricity, and a Venereal Diseases Department.

During 1920, there were 2,182 In-patients and 6,917 Out-patients. Of the In-patients, 1,628 were discharged cured, 321 relieved, 106 unrelieved and 127 dead. The average daily number of In-patients was 124, and the average duration of treatment was 19.5 days, whilst the death rate was 5.5 per cent.; 43 of the deaths took place within 24 hours, 10 within 48 hours of admission, and in 6 cases patients were over 70 years of age. When these are deducted, the death rate is reduced to 2.9 per cent. 2,131 Operations were performed; 1,002 Major, 431 Aural and Ophthalmic, 698 in Out-patients' Theatre, 165 Patients were treated at home, 1,109 in the X-Ray Department, 279 in the Orthopaedic Department, 622 in the Venereal Diseases' Department and 45 patients were sent to Convalescent Hospitals.

The cost of maintenance was £21,124, and the income £20,912. The average cost per week for In-patients was £2 8s. 2d., the average total cost per In-patient being £6 14s. 4d., and per Out-patient 8s. 4d.

POOR LAW RELIEF.

Number of persons received into the Fulwood Workhouse Hospital during 1920.

	Men.	Women.	Children.	Total.
Preston ...	229	213	66 ...	508

The total amount of Outdoor Relief paid during 1920 in respect of the Borough was £3,055 18s od.

There are in the Borough of Preston 5 District Medical Officers and also a District Nurse in the service of the Guardians.

NATIONAL INSURANCE ACT.

Mr. Irvine R. Dearnley, Clerk to the Preston Insurance Committee, has kindly supplied the following information :—

During the year 1920 the mean number of insured persons in the Borough was 58,311.

1st April, 1920 ...	...	...	...	57,100
1st July, 1920 ...	...	...	...	58,139
1st October, 1920	...	...	...	58,857
1st January, 1921	...	...	...	59,147

The number of Doctors on the Insurance Committee's list during the year was 42 and the number of chemists establishments 22. In addition, there is one Approved Medical Institution—The Preston Friendly Societies' Medical Association—which supplies medicines direct as distinct from issuing prescriptions to be dispensed at a chemist's. The aggregate number of persons who had selected a doctor (other than Institutions) being roughly 48,000, in addition, the Institution list is something over 2,300.

There are no figures available showing the number of prescriptions dispensed by the Institution, but there is no reason to suppose that the average is any less, or more, than that of the remaining doctors which are as follows :—

Prescriptions dispensed	138,568
Total Cost	£5,520 19s. 10d.
Average Cost	9.56d.
Frequency	2.99d. per person on list.
Average cost per insured person	2s. 3½d.

Owing to the war, the keeping of certain records was temporarily suspended. We have consequently no data at present available to show the average duration of illness nor anything to distinguish between surgery attendances and domiciliary attendances, but previous calculations showed, approximately, an average illness duration of 8 attendances with nearly 7 surgery attendances to one home visit,

II.—Sanitary Circumstances of the District.

WATER SUPPLY.

I am indebted to Mr. J. Smethurst, Water Engineer, for the following information :—

The chief supply is obtained from uninhabited moorland near Whitewell, about 20 miles from Preston. There are two systems of supply known as the Langden and Hareden Systems. The water from these streams is carried to screening chambers at a considerable height above sea level. The Screens contain 256 holes to the square inch, and the water after screening is conveyed in a covered conduit to a measuring basin in each of the river valleys and from thence to storage reservoirs which have a capacity of 650,000,000 gallons.

The supply is constant, of good quality and free from Plumbo Solvent action. The temporary hardness figure is 2.3 parts per 100,000, and the permanent hardness is represented by 2 parts per 100,000.

The domestic consumption is high—33 gallons per head per day. The amount available is sufficient for present day needs. The requirements of the near future will be met by the enlargement of the existing supply, powers for which have been obtained in the Preston Corporation Act, 1921.

RIVERS AND STREAMS.

Running in a S.E. direction and entering the river at various points in its winding course along the South boundary of the town are several small brooks which are mainly culverted and serve to take off a considerable amount of surface water. There are the Swil Brook, the Syke Brook, the Marsh Lane Brook, the Moor Brook and the Eaves or Boundary Brook.

The River Darwen, which joins the South side of the Ribble along its boundary course receives the effluent from the Sewage Works at Blackburn and Darwen and at Freckleton, below the town, the Ribble receives the Preston Sewage Farm effluent. The resultant pollution is diluted and the river bed cleansed by the estuarial tide.

DRAINAGE AND SEWERAGE.

The main system of sewerage consists of Trunk Sewers fed by Street Sewers which pick up the house drains.

The Trunk Sewers are known as :—

1. The Northern Sewer which starts in Cromwell Road and follows the line of the Eaves Brook along the Northern boundary of the Borough. At Haslam Park it follows the course of Pedders Lane and North of the Dock lands, turns again Eastward to the Pumping Station.

2. The Aqueduct Sewer commences in Isherwood Street (Deepdale Ward) and follows the contour of the Moor Brook and is joined by a branch at the junction of Fylde Road and Water Lane, which follows the course of Fylde Road.

3. The Marsh Lane Sewer consists of two main tributaries. The Northerly branch begins in North Road and passes along Walker Street, Kendal Street to Lodge Street and Marsh Lane, and is there joined by the Southerly portion starting in Lancaster Road, this branch then passes along Earl Street, Orchard Street, Friargate, Lune Street and South of Marsh Lane. The joint sewer proceeds to the bottom of Marsh Lane where it is intercepted by the Southern Sewer.

4. The Syke Sewer follows the course of the Syke Brook. Starting at Church Street it passes along Shepherd Street, Avenham Lane, Syke Street, across Winckley Square, across the bottom of Fishergate Hill and is intercepted by the Southern Sewer.

5. The Ribbleton Sewer follows the course of the Ribbleton Lane until it reaches Deepdale Mill Street when it takes a Southerly trend and joins the New Hall Lane Sewer.

6. New Hall Lane Sewer. These two latter sewers and their junction follow the course of Swil Brook. From London Road it proceeds in a Southerly direction and turns South-West at Larkhill Street, then North-West across the Easterly end of Avenham Park to join the Syke Sewer at the bottom of Mount Street.

7. The Southern Sewer starts at Walton Bridge and from the Tram Bridge follows the Northern bank of the river. At the Fishergate Bridge it is joined by the Syke, Ribbleton and New Hall Lane Sewers, at Marsh Lane by the Marsh Lane Sewer, and together with the Northern and Moor Brook Sewers, enters the Pumping Station at the North-East of the Dock Lands.

Storm water overflows are provided below the Dock, above the Dock, at Fishergate Bridge, at the Tram Bridge, and at Walton Bridge. The Sewerage is lifted by Shone's Ejectors into the Pumping Main and dealt with by settling and broad irrigation at Grange Farm, Freckleton.

CLOSET ACCOMMODATION.

There are approximately 27,433 fresh water closets, 500 waste water closets, 14 trough closets (exclusive of those in use at Schools) and 6 privy middens, of the latter 5 are in Miller Road, off Ribbleton Lane, and are not within reach of a sewer, and one is in South Meadow Lane and is due for removal as the land upon which it stands is opened up for building. The campaign for the conversion of privies into water closets has been steadily pursued for many years. After 1900, the effort was intensified, and in 1904, 2,100 conversions were undertaken. With the exceptions stated above, the work was finished in 1910.

The whole of the work was done under Section 36 of the Public Health Act, 1875.

Simultaneously with the conversion to water carriage, the flagging of yards and lobbies was carried out under Section 73 of the Preston Corporation Act, 1900.

SCAVENGING.

The whole of the street cleansing is done by team and hand labour and during the day twenty-two "tidy" boys are engaged in clearing the main streets of animal droppings, waste paper, etc. The refuse collected is sold as far as possible to farmers and market gardeners, the balance, which is of very little manurial value, being taken to tips. All the houses are provided with covered galvanized sanitary dust bins. The contents of these bins are collected as often as required, some daily, others twice or thrice weekly, but all at least once weekly.

The Cleansing Committee have purchased two electric vehicles for dust collection which have been put into service and up to the present have proved satisfactory. The question of replacing horse traction by motors is under consideration. 620 Loads of refuse are collected weekly, of which 460 loads are dealt with at the Destructor. The balance of 160 loads are sent chiefly to the Arterial Road and to Bostock's Farm, and a small amount to various tips. The Destructor is a "simplex" Meldrum of four units each of four cells or 16 cells in all. The resultant heat is utilized for raising steam for the generation of electricity at the adjoining Tramway Power Station.

The Cleansing of the town, which is satisfactorily carried out, is in the hands of the Borough Surveyor, to whom I am indebted for the above information.

SANITARY INSPECTION OF DISTRICT.

TABLE IIa.

Summary of Work done during the year 1920.

	No. 1 District	No. 2 District.	No. 3 District.	No. 4 District.	Total.
Number of Complaints received	345	1179	256	855	2,635
Inspections of Dwelling Houses	947	1793	1685	1686	6,111
„ Infected Houses	130	304	131	68	633
„ Lodging Houses	23	744	70	3003	3,840
„ Shops .....	...	26	36	...	62
„ Canal Boats .....	...	...	...	109	109
„ Vans and Tents	48	22	39	30	139
„ Schools	113	19	14	8	154
„ Cowsheds, Dairies and Milkshops...	369	169	124	83	745
„ Slaughter Houses .....	...	1	36	2	39
„ Markets .....	...	139	21	692	852
„ Drains and Yards	84	2088	3733	1050	6,955
Re-Inspections	3276	743	368	1742	6,129
Circular Letter sent (Informal Notices)	538	668	230	413	1,849
Statutory Notices served for Defective Slopstone Pipes ..	109	514	59	21	703
„ „ Drains	113	173	176	343	805
„ „ Spouts	356	107	116	89	668
„ „ Water Closets	273	255	186	249	963
„ „ Yard Pavement.....	15	30	12	10	67
„ Limewashing	139	140	123	56	488
„ Manure Accumulation	11	11	...	7	29
„ Stagnant Water .....	...	...	1	1	2
„ General Nuisances	331	143	136	215	825
„ to provide W.C.s .....	...	...	1	...	1
„ Supply Ashpails	1010	651	189	401	2,251
House Drains Tested	40	135	45	109	329
School Drains Tested	1	...	...	2	3
Theatre Drains Tested .....	...	3	...	...	3
Houses Disinfected	276	465	304	289	1,334
Schools Disinfected	6	16	10	10	42
Picture Palaces Sprayed	12	24	12	...	48
Parcels of Bedding Disinfected	41	80	38	26	185
Animals removed	154	80	...	79	313
Ashpits filled up	6	...	1	4	11
Notices served for Re-registration of Common Lodging Houses .....	...	3	1	30	34

TABLE IIb.

List of Factories and Workshops on Register during the year 1920.

	No. 1 District.	No. 2 District.	No. 3 District.	No. 4 District.	Total.
Artificial Teeth Makers	3	7	5	9	24
Bakers and Confectioners (Retail)	50	62	26	49	187
Bakers (Public)	2	1	...	4	7
Basket Makers	1	2	2	1	6
Beer Bottlers	3	2	1	6	12
Biscuit Makers .....	...	3	1	...	4
Boot, Shoe, and Clog Makers, Leather Curriers	25	61	25	35	146
Brass Founders .....	...	1	1	3	5
Breweries	1	2	...	1	4
Brush Makers	1	...	...	3	4
Cabinet Makers, Wood Carvers, Upholsterers	4	17	9	20	50
Coach Builders	2	...	5	5	12
Cotton Waste Cleaners and Dealers .....	...	2	...	2	4
Cotton Manufacturers	24	14	20	8	66
Coopers	1	3	2	1	7
Cycle Makers and Enamellers	10	15	7	9	41
Engravers	3	...	...	6	9
French Polishers	1	3	1	4	9
Ironfounders Motor Engineers and Boiler Makers	5	8	10	11	34
Joiners, Builders, Wheelwrights, Wood Turners	13	29	4	16	62
Laundries	3	1	3	1	8
Marine Store Dealers .....	...	5	...	4	9
Milliners, Dressmakers, Underclothing Manufacturers	25	100	26	74	225
Picture Framers, Mount Cutters, Gilders	2	4	1	6	13
Photographers	4	4	2	7	17
Plumbers, Painters	10	13	10	21	54
Printers, Bookbinders .....	...	1	1	18	20
Restaurant Keepers	6	5	15	11	37
Rope and Twine Makers	2	...	...	1	3
Saddlers	1	6	...	5	12
Smiths, Black and White and Tinplate.....	5	14	5	27	51
Stone and Marble Masons	4	4	3	5	16
Sugar Boilers	4	1	...	4	9
Tailors	13	45	5	66	129
Watch Makers and Jewellers	9	14	4	10	37
Wire Workers .....	...	1	1	1	3
Offensive Trades	Fell Mongers .....	...	...	1	1
	Soap Boilers .....	...	...	3	3
	Fat and Tallow Melters	1	4	3	8
	Knacker Yards	1	...	...	1
	Gut Scrapers .....	...	4	1	5
Various	Tripe Boilers	1	4	1	6
	.....	2	30	20	78
TOTAL.....	242	497	211	488	1438

TABLE IIc.

Factories, Workshops, Workplaces and Home-Work.**1.—INSPECTION.**

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
Visits to Warehouses	201	...	...
Factories (including Factory Laundries)	308	8	...
Workshops (including Workshop Laundries)	2149	...	...
Workplaces (other than Outworkers' premises included in Part 3 of this Report)	162	...	...
Total	2820	8	...

2.—DEFECTS FOUND.

Particulars.	Number of Defects.			Number of Prosecutions.
	Found.	Remedied	Referred to H.M. Inspector	
<i>Nuisances under the Public Health Act :—</i>				
Want of Cleanliness	18	18		
Want of Ventilation .....	...	...
Overcrowding .....	...	...
Want of drainage of floors .....	...	...
Other Nuisances	50	50		
Sanitary accommodation {	insufficient	15	15	
	unsuitable or defective...	44	44	
	not separate for sexes....	...	...
<i>Offences under the Factory and Workshop Act :—</i>				
Illegal occupation of underground bakehouse (s. 101) .....	...	...
Breach of special Sanitary requirements for bakehouses (s.s. 97 to 100).....	...	...
Other offences (excluding offences relating to outwork which are included in Part 3 of this Report) .....	...	...
Total	127	127		

TABLE II_D. HOME WORK.[illegible]

4.—REGISTERED WORKSHOPS.

5.—OTHER MATTERS.

Workshops on the Register (s. 131) at the end of the year.							Number.	Class.	Number.
Factories	...	...	...	...	...	...	122	Matters notified to H.M. Inspector of Factories :—	
								Failure to affix Abstract of the Factory and Workshop Act (s. 133) 1901	...
Workshops	...	...	...	...	...	...	1056	Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5). 1901	...
Workplaces	...	...	...	...	...	...	84	Notified by H.M. Inspector Reports (of action taken) sent to H.M. Inspector...	47
Retail Bakehouses	...	...	...	...	...	...	169	Other	...
Public do.	...	...	...	...	...	...	7	Underground Bakehouses (s. 101) :—	
								Certificates granted during the year	...
Total number of Workshops on Register	...	...	...	...	...	...	1438	In use at the end of the year	2

TABLE II E.

Summary of Work done under the Factory and Workshop Act, during the Year 1920.

	No. 1 District.	No. 2 District.	No. 3 District.	No. 4 District.	Total.
Number of Factories and Workshops on Register...	242	497	211	488	1438
„ Circular Letters sent re Out-workers...	...	20	2	38	60
„ Out-workers reported .....	...	22	4	60	86
Visits to Factories and Workshops	403	525	241	254	1423
„ Retail Bakehouses	312	238	103	65	718
„ Public Bakehouses	444	34	...	...	478
„ Home-workers premises	19	23	17	36	95
Drains tested .....	...	...	5	8	13
Defects found and Remedied:--					
Defective Drains	2	...	5	5	12
„ Slopstone Pipes .....	...	...	1	...	1
„ Spouts and Roofs	5	1	1	4	11
„ Water Closets	7	13	21	3	44
„ Yard pavement.....	...	...	...	...	...
Limewashing required	4	6	6	2	18
General Nuisances	1	5	6	8	20
Insufficient W.C. accommodation for Females	4	3	1	1	9
„ „ Males .....	...	..	2	4	6
No receptacle for refuse .....	...	...	...	4	4
Manure Accumulations .....	...	2	...	...	2

Total defects found and remedied 127.

OFFENSIVE TRADES.

The following offensive trades are established in the Borough :—

Fell Monger, 1; Soap Boiler, 3; Fat and Tallow Melter, 8, Knackers Yard, 1; Gut Scraper, 5; Tripe Boiler, 6.

All these premises are subject to frequent inspection. 698 Visits were paid during the year. The conditions are as satisfactory as the nature of the trade will allow. The Knackers Yard has been structurally improved and is at present undergoing further alteration.

PIG KEEPING.

There are 25 Pig Keepers in the Borough, 11 of whom have been granted permission since 1918. The total number of pigs kept is 235.

The sanitary conditions, especially those relating to the distance from inhabited dwellings, drainage, condition of floors and buildings, and means of temporary storage of manure are satisfactory in 22 cases. Suitable action is being taken to remedy insanitary conditions in the remaining three cases.

COMMON LODGING HOUSES.

There are 34 Common Lodging Houses on the register, two having been closed since 1916. The accommodation consists of 910 beds in 232 rooms. The average number of lodgers per night is 423.

The premises were visited regularly at intervals of 3 days or 3,840 visits in all. Proper conditions as to cleanliness, ventilation, keeping of registers, whitewashing and avoidance of overcrowding, etc., were firmly enforced by the Sanitary Inspectors.

There are no houses let in lodgings on the register. A few which might come under this designation are regarded and treated as Common Lodging Houses.

THE RAG FLOCK ACT.

Two samples of rag flock were submitted to analysis and a satisfactory report received in each case.

RATS AND MICE DESTRUCTION ORDER.

In addition to the exhibition of Public Notices and Press advertisements during Rat Week, and the work done under this head by the Port Sanitary officials, the advice of the Department was sought by proprietors of infested premises on numerous occasions. In seven cases the "invasion" was of a casual nature and repelled by traps, poison and dogs, and in 10 cases an examination proved that it was due to

structural defects of the drains and buildings. In each case the possibility of further infestation was removed by the execution of the necessary repairs. In these operations over 200 rats were destroyed. The town suffers comparatively slightly from the depredation of these animals. Enquiries among owners of premises used for provision storage shewed that in only half the cases examined were rats found. Marine Store dealers and offensive trades were free. In one case only, that of a disused provender warehouse, was a serious infestation experienced, over 60 rats being caught by dogs during the rat proofing alterations.

PRESTON PORT SANITARY AUTHORITY.

The work at the Dock has been carried out on the usual lines. Inspector Baron, who also had charge of a Sanitary District, acting as Port Sanitary Inspector.

There have been no cases where ships have reached Preston from ports infected with dangerous infectious diseases such as Cholera, Plague, Small Pox and Yellow Fever. Our arrangements for the protection of the Public from such diseases are apparently satisfactory with the exception that we have no hospital accommodation for cases at or near the Dock. This will be sought from the Authorities of the large neighbouring Ports of Liverpool or Manchester.

The results of the Inspections shew that the principal Sanitary defects are associated with lack of cleanliness. Thus dirty provision lockers, dirty focastle and foul and defective water closets provide the bulk of the defects. Of greater importance is the less frequently met with foul condition of water casks and tanks. No difficulty has been experienced in getting these matters immediately remedied.

The work in connection with the destruction of rats has continued. During the year 1,244 baits of Virus, Phosphorus and Lithographers' Varnish have been set, and a total of 1,391 rats killed. The Ratcatcher also used dogs and ferrets, and cats are encouraged to make their homes in the warehouses.

The Ship Masters have given all the assistance in their power in the matter and in the general sanitary work of the Port.

At the end of the year an improvement in the administration was effected by the appointment of Inspector Baron as whole-time Port Sanitary Inspector; by the transfer of the Ratcatcher from the employ of the Ribble Committee to the Port Sanitary Committee, and by the provision of office accommodation at the Docks.

The following Table deals with the shipping entering the Port:—

TABLE II.F.

Amount of Shipping entering the Port Sanitary District during the year 1920.

		Number	Tonnage	Number Inspected		Number reported to be defective	Number of of Orders Issued
				By the Med. Officer of Health	By the Inspector of Nuisances		
Foreign	Steamers	127	114030	20	124	50	...
	Sailing	24	13181	2	24	1	...
	Fishing	...	...	...	...	...	...
Total Foreign		151	127211	22	148	51	...
Coastwise	Steamers	704	94395	26	600	77	...
	Sailing...	54	5770	3	54	...	...
	Fishing	...	...	...	...	...	...
Total Coastwise		758	100165	29	654	77	...
Total Foreign and Coastwise		909	227376	51	802	128	...

Names of Vessels arriving in the Port Sanitary District		Names of Vessels subjected to measures of rat destruction			Method Employed	Number of Rats killed
Plague infected	Plague suspected	Plague infected	Plague suspected	Other Vessels		
nil.	nil.	nil.	nil.	nil.	...	...

TABLE IIc.

Return of Port Sanitary Work for the year 1920.

Foreign	{	Steamships Inspected	...	...	...	...	124
		Sailing Vessels Inspected...	...	...	...	...	24
		Re-Inspections	...	...	...	...	103
Coastwise	{	Steamships Inspected	...	...	...	...	600
		Sailing Vessels Inspected	...	...	...	...	54
		Re-Inspections	...	...	...	...	160
Condition of all Vessels Inspected	{	Good	...	...	...	...	674
		Defective	...	...	...	...	128
Defects Remedied:—							
Forecastle	Dirty	...	...	...	...	...	52
Do.	Required painting...	...	...	...	...	...	3
Do.	Deck Leaking	...	...	...	...	...	1
Do.	Ventilation and Light Defective	...	...	...	...	...	4
Foul and Defective Water Closets		...	...	...	...	...	68
Foul Water Casks and Tanks		...	...	...	...	...	16
Dirty Provision Lockers		...	...	...	...	...	230
Do.	Bilges	...	...	...	...	...	4
Do.	Chain Lockers under Forecastle	...	...	...	...	...	8
Do.	Lavatories	...	...	...	...	...	20

Public Health (Unsound Food) Regulations, 1908.

LIST OF ARTICLES INSPECTED.

Hams	Flour	Peas	Sugar
Bacon	Wheat	Beans	Potatoes
Lard	Oat Meal	Barley	Nuts

Tinned Goods.

Herrings	Brislings	Apples	Apricots	Plums
Sardines	Tongues	Pineapple	Tomatoes	Pears

5 Cwts. of Potatoes were condemned and destroyed.

The chief Imports were Wood Pulp, ex Norway, Sweden and Canada; Nails and Wire, ex Canada; Esparto Grass and Nuts, ex Africa; Deals, Battens and Boards, ex Scandinavia and Canada, and Exports were Fluor Spar and General to Canada.

REPORT ON THE ADMINISTRATION OF THE CANAL BOATS ACTS, 1877 and 1884.

Two changes have taken place during the past year, the "Ruby" No. 57, which was a steam launch intended for towing purposes, has been sold; and the "Mary Anne" No. 6, has been broken up.

The Records show that 57 boats have been registered, of which 28 have been cancelled, thus leaving 29 on the Register.

The "Royal Oak" No. 55 is still laid up at her owners' place outside the Borough Boundary; the "Stella" No. 50, "Olive" No. 51, and "Florence" No. 52 are laid up at Lancaster and have not been inspected.

No infringements of the Regulations have been discovered.

In the Report for 1919, reference was made to the painting of the cabins of some of the boats being overdue; this work has been brought up to date, except in the case of two boats laid up for the whole year.

On inspection, the boats have been found to be in a very satisfactory condition.

One case of Diphtheria was reported on the 27th of August, on board the boat "Kendall" No. 33, the patient, a girl aged 8 years, was dead at the time of notification. Precautionary steps were immediately taken by the Inspector, including arrangements for the immediate burial of the body, the quarantine of contacts and disinfection of the boat.

The work of supervision has been carried out as in the past 14 years by Inspector Crossthwaite, in addition to his other Sanitary duties, no special remuneration being provided for this portion of his work.

The following table shows the details of occupation and inspection during the past 10 years.

TABLE IIH.

	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920
No. of Inspections ...	123	108	115	98	104	122	113	121	124	111
Males in Occupation...	162	133	138	112	83	52	67	115	129	98
Females in Occupation	73	60	65	59	52	24	33	50	57	47
Children in Occupation	75	50	44	58	69	10	25	40	27	41

III.—Food.

(a). MILK SUPPLY.

There are 20 farms in the Borough housing 304 cows, the daily yield of which amounts to 848 gallons.

The conditions are on the whole unsatisfactory, there is no general system of grooming the cows, wearing overalls or washing the hands before milking.

Of the 20 farms or producers 13 are directly unsatisfactory in respect of defects in connection with one or more of the following, ventilation, lighting or structural conditions.

There are 28 dairies evenly distributed over the Borough which sell nothing but milk. This trade is usually associated with a milk round, and there are 47 shops where milk is sold in association with other goods, principally paraffin, grocery and hardware. The amount sold daily in the dairies is 1,312 gallons and from shops 710 gallons daily, that is a total of 2,022 gallons daily, of which 848 gallons are produced within the Borough, and the remainder by 55 farmers outside the town.

The District Inspectors have paid 745 visits to farms and dairies, and the Food Inspector 165. The condition of the dairies is unsatisfactory; for example, one is situated under the staircase in the back kitchen. Another is a lean-to against a W.C. in a small backyard. In another case the milk store is the wash-house kitchen. The facilities for cleansing the vessels are most unsatisfactory, those for cooling milk either absent or very bad, such as depositing the kit in a washtub and arranging for a flow of water from the nearest supply pipe. I have seen full kits with the lid half on deposited within a few inches of a full dust-bin, the lid of which was missing, a brisk breeze assisting to the full the inevitable gross contamination. The amount of contamination seemed comparatively greatest in the case of the smaller sales. In addition to the numerous opportunities of infection already mentioned it should be borne in mind that a considerable quantity of milk is sold by middlemen who collect from the farmer and deliver to the dairymen and shops. Bulk is broken in many of these transactions, fresh opportunities for contamination being thereby afforded.

Tuberculosis, which is rife in this country among dairy cattle, is much less prevalent in the Fylde and around Preston than it is in South Lancashire, Yorkshire and Cheshire (Professor Delepine).

It is, however, as recent examinations have proved, an occasional occurrence and as modern medical opinion is strongly in favour of surgical tuberculosis being almost entirely due to the Bovine type of the Bacillus Tuberculosis it is essential that no tubercular milk be sold.

During the latter part of 1920 the Ministry of Food issued Regulations with regard to the granting of Licences to Producers and Retailers enabling them to sell milk of an approved quality to be known as Grade "A" milk at an enhanced price. So far I have been unable to ascertain that any licence has been applied for in the whole County although, of course, milk of a very high standard of quality and purity is produced at the County Council's Experimental Farm at Hutton.

The high price and poor quality of the milk sold in the County are rendering it an unpopular diet for the children of the wage earners. In New York and other cities of the United States, where a determined effort has been made by the producers to put on the market a clean and reliable article, there is consumed at least three times the amount per head as is consumed in this country. There can be contributed nothing so important to our efforts to reduce Infantile Mortality and those alimentary diseases of the young such as Rickets and Debility as the provision of a pure and wholesome milk.

MILK (MOTHERS AND CHILDREN) ORDER, 1919.

The organisation for the supply of milk and other foods to Expectant and Nursing Mothers and Children has been carried out on the lines indicated in previous reports.

Briefly, the applications stating income from all sources are carefully verified by a member of the clerical staff and submitted to a small sub-committee presided over by the Chairman of the Maternity and Child Welfare Committee.

The amount, whether free or at a proportion price, and the period for which the milk is to be given, are decided upon and orders given to the retailers.

A large amount of the various forms of dried milk is sold at the Health Office to persons recommended at the Centres, as shewn in the following statement for the year 1920.

	Cows Milk.	Dried Milk.	Lactogol.	Virol.
Foods Sold £	Nil.	1527 19 0	19 16 3	167 3 0
Foods Supplied Free £	330 5 5	71 13 8	1 8 9	3 7 0
£	330 5 5	1599 12 8	21 5 0	170 10 0

	£	s.	d.
Value of Foods Sold	1714	18	3
Value of Foods Supplied Free ...	406	14	10
	<u>£ 2121</u>	<u>13</u>	<u>1</u>

MILK AND CREAM REGULATIONS, 1912 AND 1917.

Three samples of Preserved Cream were purchased each of which met the requirements of the above Regulations.

(b). MEAT.

Preston is fortunate in that the bulk of the slaughtering of animals and dressing of carcasses for the purpose of food is carried out in a Public Abattoir, which was erected about 25 years ago. In addition, the Co-operative Society have a large and well-constructed slaughter house which was built about 20 years ago. The number of private slaughter houses has been very greatly reduced in recent years. Twenty-seven years ago they were 83 in number and during the year under review the number has again been reduced. Under the present system the inspection of every carcase prepared either at the Cattle Market or the Co-operative Society's slaughter house, and a large number of those prepared in private slaughter houses, is inspected. Inspector Marsden paid 3,566 visits to the various premises and over 50 tons of meat was surrendered. I am unable to say what proportion of this was condemned on account of tuberculosis.

The arrangement in force whereby the butcher calls the attention of the inspector to the condition of any carcase about which he has suspicion as to its soundness, works very well and no action has been taken under Section 117 of the Public Health Act, 1875.

SLAUGHTER HOUSES.

		In 1914.		In January, 1920.		In December, 1920.
Registered	...	—	...	—	...	—
Licensed	...	21	...	16	...	15
		—		—		—
Total	...	21	...	16	...	15
		—		—		—

In addition to the above there are 4 houses used exclusively for the slaughter of pigs which are neither registered nor licensed.

The number of animals dealt with during the year is as follows :—

	Beasts.	Calves.	Sheep.	Pigs.
Abattoir	4978	974	12513	621
Co-operative Slaughter house.	737		1501	56
Private Slaughter- Houses	1407	435	8153	2700

(c). OTHER FOODS.

The wholesale Fish Market is regularly supervised by Inspector Crossthwaite; the amount of fish surrendered is approximately 14 tons 16 cwts. out of a total of 3,806 tons reaching the market.

The retail markets are also under regular supervision by the Food Inspector and the District Inspectors, 852 visits being made during the year and 3,362 lbs. of fruit, surrendered and destroyed.

There are 187 bakehouses and confectioners and 7 public bakehouses, the conditions are in the main fairly satisfactory.

POTTED MEAT.

There are approximately 100 butchers shops in the town, of which 71 are used for making potted meat. With the exception of the larger trading Companies selling frozen meat, the shops are generally part of a private dwelling-house, the potted meat being prepared in the kitchen. The conditions are satisfactory.

Sausages are prepared in the pork shops and in the Co-operative slaughter-house. The bulk of the pigs are slaughtered by one private firm, and the remainder by the Co-operative slaughter-house and at the Cattle Market, and there are occasional killings by three other firms.

In two instances the conditions are not satisfactory, opportunities of contamination of the meat by intestinal contents being present.

Powers for the further control of these premises has been obtained in the Preston Corporation Act, 1921.

(d). SALE OF FOOD AND DRUGS ACT.

TABLE IIIA.

Substances formally purchased and submitted for Analysis during the year 1920.

Name of Article.	No. of Samples.	Result.
Butter	3	Genuine.
Cheese	13	do.
Chocolates	1	do.
Coffee	9	do.
Ground Ginger	2	do.
Ice Cream	2	do.
Jam	1	do.
Lard	24	do.
Milk	35	do.
Mustard	5	do.
Oatmeal	2	do.
Pepper (white)	4	do.
Preserved Cream ...	3	do.
Sweets (boiled)	9	do.
Tea	19	do.
Sugar	5	do.
	137	

TABLE III_B.

Substances formally purchased and submitted for Analysis during the Year 1920.

Name of Article.	No. of Samples	Result.
Milk	I	No. 664. 2.31% Fat, 8.56% Other Solids; deprived of 6% of its Milk Fat. Vendor cautioned.
Milk	I	No. 724. Contained 2.95% Fat, Other Solids 8.45%.
Milk	I	No. 728. Contained 3.48% Fat, 8.31% Other Solids, 11.79% Total Solids; deprived of 17% of its Fat. Summoned and fined 4os. and 8s. 6d. Costs.
Milk	I	No. 784. Slightly watered. No action taken.
Milk	I	No. 853. Contained 2.86 % Fat, 6.86% Other Solids—9.82 Total Solids; 18% added water. Samples wrongly procured.
Milk	I	No. 906. 3.49% Fat, 8% Other Solids—11.49% Total Solids; 5% added Water. No action.

TABLE IIIc.

Substances informally purchased and submitted for Analysis during the year 1920.

Name of Article.	No. of Samples	Result.
Butter	15	Genuine.
Cheese	23	do.
Chocolates	4	do.
Coffee	18	do.
Jam	17	do.
Lard	30	do.
Milk	4	do.
Mustard	6	do.
Sugar	8	do.
Sweets	8	do.
Tea	30	do.
	163	
Coffee	1	No. 675. Contained 35% Chicory.
Mustard	1	No. 615. Contained 5% Wheat Flour.
	2	

IV.—Prevalence of, and control over, Infectious Diseases.

The seven principal Zymotic Diseases which are, Small Pox, Scarlet Fever, Measles, Whooping Cough, Diphtheria, Typhoid Fever (including Typhus), and Epidemic Diarrhoea, caused 70 deaths, giving a zymotic death rate of 0.57 per 1,000 living, as against 1.7 for the previous ten years. I append a table shewing the mortality from and the morbidity of these diseases for previous years.

TABLE IV_A.

Zymotic Diseases. The Deaths from and the Mortality rate caused by Zymotic Diseases during the last five Decennia.

YEAR	1871-1890	1881-1890	1891-1900	1901-1910	1911-1920
Average Population	86558	106884	113303	116112	114512
No. of Deaths :-					
Enteric Fever	84	79	69	220	73
Small Pox	22	6	...	10	...
Measles	125	143	158	630	357
Scarlet Fever	219	77	39	174	163
Whooping Cough	114	117	96	301	207
Diphtheria	91	72	59	251	277
Diarrhoea	455	438	496	1231	738
TOTALS	1110	932	917	2907	1815
Zymotic Death Rate	1.27	0.92	0.79	2.50	1.59

SCARLET FEVER.

158 Notifications were received, as compared with 152 in 1919, and 62, 111 and 397 in 1918, 1917 and 1916 respectively. There has been no marked epidemic. The number of cases slowly declined from January to June, and again increased to the January level in December. The relative mildness of the disease is reflected in the small number of deaths caused by it (2). The necessity for the greatest care in this disease remains, as the complications which may be crippling in their after effects, such as heart disease, kidney disease, and ear disease, are liable to follow the mildest attack.

It was the exception for the enquirer to be able to trace the source of infection.

The part played by the mild "missed" case is very great, and, I think, accounts for the maintenance of the disease in non-epidemic times.

TABLE IVB.

Summary of Zymotic Deaths for 1920 and the preceding ten years.

YEAR	1920	1919	1918	1917	1916	1915	1914	1913	1912	1911	1910	Average
Population	121950	117277	105845	106747	109935	111936	118514	118070	117630	117216	119253	114242.3
No. of Deaths. Enteric ...	1	2	4	2	11	4	10	10	8	21	20	9.2
Small Pox ...	...	...	...	...	...	...	...	...	...	...	...	...
Measles ...	14	26	2	35	14	61	45	65	90	5	31	37.4
Scarlet Fever	2	2	...	...	10	23	42	29	36	19	8	16.9
Whooping Cough	10	5	35	28	12	27	23	5	42	20	8	20.5
Diphtheria ...	13	19	13	24	38	36	25	32	41	36	18	28.2
Diarrhoea ...	30	43	42	50	69	88	67	133	46	170	107	81.5
Totals ...	70	97	96	139	154	239	212	274	263	271	192	193.7
Zymotic Rate	0.57	0.82	0.90	1.30	1.40	2.13	1.79	2.32	2.23	2.31	1.61	1.7

TABLE IVc.

Cases of infectious disease classified according to Age and Ward distribution.

[illegible]

DIPHTHERIA.

172 Cases of Diphtheria were notified as against the same number last year, and 111, 132 and 226 in 1918, 1917 and 1916 respectively.

The maximum number of cases occurred in the first quarter, and with the exception of August (6 cases) an average of 13 cases a month for the remainder of the year. There were 13 deaths, of which 7 occurred in the Isolation Hospital. The mortality equals 0.16 per 1,000 living, and the morbidity 7.5 per cent. of those attacked.

Swabs are taken and Antitoxin administered by the medical practitioners in charge of the case in the majority of instances.

Hospital accommodation was utilized in 100 instances or 58 per cent. of the cases.

ENTERIC FEVER.

This disease was notified in 18 instances. The number in the previous four years being 17, 9, 18 and 47. I am unable to offer a formed opinion as to this continued prevalence. The number of deaths from this cause has been gradually declining for many years. Last year there was one death as against 2, 4, 2, 11, 4, 10, 10, 8, 21 and 20 in the preceding 10 years.

We have a pure water supply, water carriage system, paved or cobbled streets and paved yards; the drainage and sewerage are good and there should be in consequence an absence of typhoid fever. The probability is that infection is maintained by chronic carriers.

Of the 18 cases, 10 were under 15 years and 5 were between 15 and 25. The cases were evenly spread out over the whole year, the maximum number in any one month being 3 (June). No cases occurred in February. Of the eighteen cases, fifteen, among whom occurred the solitary death recorded, were removed to the Isolation Hospital.

PUERPERAL FEVER.

I regret to record an increase in the cases notified under this head and the deaths caused thereby. The question is more fully developed in the Maternity and Child Welfare section (page 78).

A comparative statement of the incidence and mortality of the disease is appended.

TABLE IV_D.

Summary of Cases of Puerperal Fever in the last 10 years.

YEAR	No. of Cases Notified	No. of Deaths	No. of Births Registered	Incidence Rate per 1000 Births	Mortality per 1000 Births
1910	7	4	2812	2.47	1.40
1911	6	2	2726	2.20	0.73
1912	2	1	2753	0.72	0.36
1913	7	2	2888	2.42	0.69
1914	7	2	2841	2.46	0.70
1915	9	5	2546	3.53	1.96
1916	3	3	2315	1.29	1.29
1917	1	1	2019	0.49	0.49
1918	3	2	1906	1.57	1.05
1919	9	1	2086	4.31	0.48
Average	5.4	2.3	2489.2	2.17	0.92
1920		9	2984	4.69	3.01

MEASLES.

Seventy-one cases of measles were brought to the notice of the Department by the Head Teachers of the Schools, St. Matthew's and St. Andrew's being most heavily infected. Compared with a decennial average of 37.4, there were 14 deaths, of which 11 were those of children under school age. It is obvious that only a proportion of the cases come to our knowledge. The infectivity of measles is so great among children unprotected by a previous attack, that hospital isolation is of no value. On the other hand, hospital treatment of severe cases with complications such as Broncho Pneumonia has proved useful where it has been tried, and Home Nursing by a staff of trained women, engaged for the epidemic, has proved of very great value.

WHOOPIING COUGH.

Whooping Cough caused ten deaths against a decennial average of 20.5. Seven of these deaths were those of infants, two between 1 and 2 years and one between 2

and 5. Seventy-three cases occurred among school children, St. Joseph's, Ribbleton Avenue and Hincksman Memorial returning half the total. As this disease is probably only infectious in the catarrhal stage, that is before the characteristic whoop has developed, it is extremely difficult for children to avoid infection. Apart from the immediate damage to the lungs caused by the development of broncho pneumonia, the prolonged convalescence and the debility and wasting associated with the disease, render the sufferer particularly liable to infection by the tubercle bacillus.

EPIDEMIC DIARRHOEA.

The deaths from diarrhoea number 30, of which 16 were those of infants, 3 between 1 and 2 years, and 3 between 2 and 5 years. The remaining eight deaths were those of middle and old aged persons. This number is considerably less than reported in any previous year. Three main causes contribute to the Infantile Mortality. These are Congenital Debility and Marasmus, Pulmonary diseases, and Diarrhoeal diseases, and the decline in infant mortality, which has been experienced in recent years, has been much influenced by the diminution of the number of deaths from the last mentioned cause.

PNEUMONIA.

46 Cases of Pneumonia and two cases of Influenzal Pneumonia were notified. In each case enquired into it was found that adequate medical and nursing services were available.

MALARIA.

10 Cases were notified each of which was observed in ex-soldiers who had originally contracted the disease abroad.

TUBERCULOSIS.

Dr. J. Walker reports as follows :—

(1). CAUSES.

Tuberculosis is an infective disease caused by a specific micro-organism, the tubercle bacillus. The disease was known to antiquity, is widely distributed throughout the World (though rare among uncivilised peoples), and, in addition to the human race, affects many of the lower animals. Although recognised clinically throughout the ages and its infective nature long understood it was not until 1882 that the causative agent was definitely established. In that year Robert Koch announced his discovery of the *Bacillus Tuberculosis*, and it is this organism which is present at some time or other in every case of the disease and is responsible for its transmission and dissemination.

In the human being the tubercle bacillus may attack any of the organs or tissues of the body though some are more commonly affected than others. The site it most frequently chooses is the lungs, producing the type of the disease known as pulmonary tuberculosis or phthisis : this variety is commonly known as “Consumption,” though this is somewhat of a misnomer. The term “Consumption” should strictly be limited to those cases presenting the classical symptoms of progressive emaciation, expectoration of tubercle bacilli, fever, etc. In many of the cases of pulmonary tuberculosis the disease becomes arrested before it has reached this stage.

The pulmonary type of the disease, by reason of its great frequency, is responsible for the high mortality and is also the chief source of the dissemination of the disease, infection being conveyed chiefly through the agency of dried sputum. The sputum, or expectoration, of an advanced case usually contains enormous numbers of tubercle bacilli. If the sputum is carelessly expectorated or not destroyed it soon dries and the highly-resistant bacilli are set free and blown about eventually finding their way by inhalation or ingestion into the bodies of persons who, if susceptible, will then develop the disease.

Other organs and tissues of the body frequently attacked are the lymphatic glands (of the neck, chest and abdomen), the bones and joints, the kidneys, skin, the membrane covering the brain (meningitis), the larynx, etc. Tuberculous affections of the above and of other parts less frequently invaded are collectively and for administrative purposes classified as non-pulmonary tuberculosis in contradistinction to the pulmonary type.

Apart from the above varieties of the disease based on anatomical distribution there are in man two types of the disease, though not clinically distinguishable from

one another, depending on the origin of the bacillus. There are several strains or types of the tubercle bacillus according to the animal affected; thus cattle are affected by the bovine type of bacillus, birds by the avian type, and man most frequently by the human type. The two most important of these types of bacillus are, from the public health point of view, the human and the bovine. It has now been definitely proved, though the opposite was originally postulated by Koch in 1901, that the bovine type of organism is transmissible to man; knowledge of this fact must have an important bearing on any campaign undertaken against tuberculosis.

In human adults by far the commonest form of the disease is the pulmonary type and in the great majority of these cases infection is caused by the human type of organism derived from a pre-existing case of human tuberculosis. In children under 14 years of age, on the other hand, in whom glandular and other forms of non-pulmonary tuberculosis are common, infection, though doubtless generally conveyed in the same manner as in adults, is also frequently caused by the bovine type of organism derived from a pre-existing case of bovine tuberculosis—in these cases the transmitting agent is generally milk. Varying figures are given by different authorities as to the extent to which gland and bone tuberculosis are milk-borne. There is, however, no doubt that infection from bovine sources plays a relatively higher part in childhood than in later life, and a most essential step in the fight against this disease must be the eradication of bovine tuberculosis.

For the development of the disease in a given individual two primary conditions are necessary, viz. :—

(1) Exposure to infection and reception of the tubercle bacillus in sufficiently large doses. The presence of the organism is necessary before the disease can be produced and this may be derived in many ways, but chiefly, as stated above, by the inhalation of dried sputum or by the ingestion of infected milk. Simple exposure to infection, however, is not enough, as very small and isolated doses of the bacilli have been shewn to be harmless. The bacilli must be received in sufficiently large doses to overcome the natural resistance of the body—that is to say “massive” infection is usually necessary. Herein tuberculosis differs in its degree of infectivity from many other infectious diseases.

(2) Favourable conditions for the growth and spread of the organism—that is to say there must be a suitable soil. Most people have a certain degree of resistance to the onslaughts of the tubercle bacillus, but this immunity is not absolute and may break down under certain conditions. Any condition tending to diminish the natural powers of resistance acts as a predisposing cause by rendering the tissues or soil

suitable for the spread of the organism. The chief of these conditions may be briefly classified under the following headings :—

- (a) Lowering effects of other diseases and faulty conditions, e.g., influenza, whooping cough, malaria, syphilis, carious teeth, enlarged tonsils and adenoids in children, etc.
- (b) Unfavourable conditions of environment, e.g., overcrowding, deficient ventilation, lack of sunlight, certain dangerous occupations, etc.
- (c) Deficient nourishment from poverty and other causes.
- (d) Hereditary predisposition.

The above are but a few of the many conditions helping to maintain the incidence of this disease, but they are mentioned as giving some idea of the many-sided problem still confronting us. They shew the importance of the social, as well as the purely medical, aspect of the question, and also that not along one path alone is success to be sought.

(2). DEATHS.

The number of deaths registered as due to tuberculosis (all forms) in Preston during 1920 was 158. Of these 111 were due to pulmonary tuberculosis, 18 to tuberculous meningitis, and 29 to other forms of the disease. Thus, out of the total deaths in the Borough 1 in every 10.5 was due to tuberculosis in some form or other, while the death rate from this disease was 0.75 per 1,000.

The age and sex distribution of these deaths is shewn in the following table :—

TABLE IVe.

Cause of Death.	Sex	All Ages	0—1	1—2	2—5	5—15	15—25	25—45	45—65	65 and over
Pulmonary Tuberculosis ...	M	51	2	3	...	3	11	15	15	2
	F	60	1	...	...	3	16	26	12	2
Tuberculous Meningitis ...	M	8	...	1	5	2	...	...	...	...
	F	10	...	1	5	2	...	2	...	...
Other Tuberculous Diseases...	M	15	1	1	4	3	...	4	1	1
	F	14	4	1	1	2	...	2	1	3

It will be seen from the above that pulmonary tuberculosis was responsible for 111 deaths, giving a death rate of 0.91 per 1,000, while other forms of the disease (including tuberculous meningitis) caused 47 deaths, giving a death rate of 0.38 per 1,000.

A comparison of these death rates with those of the previous 5 years may be made from the figures given below :—

		Death rate per 1000, from Pulmonary Tuberculosis.		Death rate per 1000, from Non-Pulmonary Tuberculosis.
1915	.....	1.17	.....	0.44
1916	.....	1.05	.....	0.38
1917	.....	1.25	.....	0.39
1918	.....	1.20	.....	0.46
1919	.....	0.95	.....	0.34
1920	.....	0.91	.....	0.38

The following table shews the total deaths from tuberculosis in Preston during the last six years and also compares them with those in England and Wales during the same period :—

TABLE IV_F.

Year	Deaths from Tuberculosis. England and Wales.			Deaths from Tuberculosis. Preston.		
	Pulmonary	Other Forms	Total	Pulmonary	Other Forms	Total
1915	41,676	12,619	54,295	131	46	177
1916	41,543	12,313	53,856	116	42	158
1917	43,113	12,821	55,934	133	42	175
1918	46,077	11,996	58,073	127	49	176
1919	36,662	9,650	46,312	114	41	155
1920	33,469	9,076	42,545	111	47	158

(3). INCIDENCE.

Under the Public Health (Tuberculosis) Regulations of 1912 the notification of all forms of tuberculosis was made compulsory—these regulations came into force on the 1st February, 1913.

The importance of this measure cannot be over-estimated as it is only by means of notification efficiently carried out that a true estimate of the prevalence of the disease can be made, and knowledge of the extent of the disease must of necessity form the basis upon which the whole superstructure of prevention and treatment is built.

By means of notification the Local Sanitary Authority becomes cognisant of each case and can then, through its organisation, put into force such remedial and preventive measures as are necessary. Further, it is through notification that the examination of contacts is secured—a very necessary step in any scheme which aims at success.

During the year 1920 the number of cases of all forms of tuberculosis notified in Preston was 306. The following table shews the number of notifications of tuberculosis in England and Wales and in Preston during the years 1915 to 1920 inclusive :—

TABLE IVc.

Year	ENGLAND AND WALES.			PRESTON.		
	Pulmonary	Non-Pulmonary	Total	Pulmonary	Non-Pulmonary	Total
1915	73,538	22,864	96,402	342	52	394
1916	72,479	23,877	96,356	310	59	369
1917	73,654	22,096	95,750	338	49	387
1918	72,741	19,391	92,132	238	22	260
1919	65,229	16,821	82,050	281	25	306
1920	61,655	15,851	77,506	246	60	306

It will be observed from the above table that in Preston, while the total is the same as the previous year the relative distribution of the pulmonary and non-pulmonary types is materially altered. Whereas the pulmonary cases shew a decrease corresponding broadly with that of the country in general, the non-pulmonary cases, on the other hand, shew a marked increase. There is evidence, however, that this latter increase is more apparant than real and that it is due to the fact that in the preceding years notification of non-pulmonary tuberculosis was very inefficiently carried out.

The lower figures of 1918 and 1919 totally misrepresent the incidence of forms of tuberculosis other than pulmonary. This is borne out by the relatively high percentage of non-pulmonary cases dying in 1920 unnotified (*vide infra*) and also by the fact that many old-standing cases which had not been previously notified have come to the notice of the Dispensary organisation.

The following 3 tables deal with the age and sex distribution of the notified cases (primary notifications on form A), the relative incidence in the different Wards of the Borough, and the occupations in age and sex groups.

TABLE IV_H.

Summary of Notifications during the year 1920.

		Notifications on Form A.										
Age periods		0.1.	1-5	5-10	10-15	15-20	20-25	25-35	35-45	45-55	55-65	65-
Pulmonary	Males	1	3	11	8	16	11	28	15	19	7	...
"	Females	...	2	14	9	18	18	33	25	6	2	...
Non-Pulmonary	Males	2	11	11	3	1	1	2	...	1	...	...
"	Females	...	8	7	7	3	1	...	2	...	...	...
		Total										

TABLE IV_I.

Distribution of Notified Cases in Wards.

WARD			Pulmonary			Non Pulmonary		
			Males	Females	Total	Males	Females	Total
Avenham	...	...	2	2	4	4	0	4
Trinity	...	...	12	10	22	1	4	5
Deepdale	...	...	13	8	21	5	2	7
Fishwick	...	...	11	2	13	0	2	2
St. Peter's	...	...	9	23	32	4	3	7
Ashton	...	...	9	6	15	0	0	0
St. John's	...	...	20	17	37	4	6	10
Moor Brook	...	...	17	13	30	0	5	5
Park ...	...	...	17	16	33	4	1	5
Maudland	...	...	4	9	13	3	0	3
Christ Church	...	...	7	9	16	4	5	9
Ribbleton	...	...	5	5	10	3	0	3

TABLE IV_J.

Occupations in age and sex groups of notified cases of Tuberculosis, 1920.

Occupation		0-1	1-5	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65+	Totals
Under School Age	M	4	12	...	...	...	...	...	...	...	...	...	...	...	...	...	16
	F	...	10	...	...	...	...	...	...	...	...	...	...	...	...	...	10
School Children	M	...	...	21	11	...	...	...	...	...	...	...	...	...	...	...	32
	F	...	...	22	14	1	...	...	...	...	...	...	...	...	...	...	37
Domestic Duties	F	...	...	...	...	3	3	5	9	8	6	3	3	1	1	...	42
Cotton Mill Operatives	M	...	...	...	...	3	4	4	3	1	...	5	1	1	...	...	22
	F	...	...	...	2	10	11	7	7	7	3	...	...	1	...	...	48
Labourers	M	...	...	...	...	...	3	2	2	2	1	2	1	2	...	...	15
	F	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0
Soldiers	M	...	...	...	...	...	...	1	1	1	2	1	...	...	...	...	6
	F	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0
Laundry Workers	M	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0
	F	...	...	...	...	...	1	...	...	2	...	...	...	...	...	...	3
Dressmakers and Milliners	M	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0
	F	...	...	...	...	2	...	1	...	...	...	...	...	...	...	...	3
Clerks	M	...	...	...	...	1	...	1	...	1	...	...	...	...	...	...	3
	F	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	2
Charwomen	M	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0
	F	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	2
Rubber Workers	M	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1
	F	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1
Wood Workers	M	...	...	...	...	1	...	...	...	...	1	...	1	...	...	...	3
	F	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0
Painters	M	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	2
	F	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0
Foundry Workers	M	...	...	...	...	3	...	...	3	...	...	2	...	...	...	...	8
	F	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0
Shop Assistants	M	...	...	...	...	2	1	...	...	...	...	1	...	...	...	...	4
	F	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0
Other Occupations	M	...	...	...	...	5	4	8	3	3	3	2	1	2	2	...	33
	F	...	...	...	...	1	2	1	...	...	...	...	...	...	...	...	4
No Occupation	M	...	...	...	...	1	...	...	1	1	...	...	...	1	...	...	4
	F	...	...	...	...	3	2	...	...	...	...	...	...	...	...	...	5
Totals	M	4	12	21	11	16	12	16	13	9	8	15	4	6	2	...	149
	F	0	10	22	16	21	20	15	16	17	11	3	3	2	1	...	157

The extent to which notification is carried out cannot be regarded as satisfactory in Preston any more than in the country in general. As long as this state of affairs prevails our onslaught on the disease can only meet with limited success however efficient our other means of attack may be—it is as though an army when launching an offensive were handicapped by a faulty intelligence department.

Taking the total deaths from tuberculosis in 1920 an analysis of the periods elapsing between notification and death yields the following result:—

Notified within 1 week of death	8
Notified 1 to 2 weeks before death	5
Notified 2 weeks to 1 month before death	10
Notified 1 to 2 months before death	6
Notified 2 to 3 months before death	6
Notified 3 to 6 months before death	16
Notified more than 6 months before death	53
No trace of notification	54
<hr/>	
Total Deaths	158
<hr/>	

A further analysis shews that it is in the non-pulmonary forms that notification is most unsatisfactory. Thus, out of 111 deaths from pulmonary tuberculosis 18, or 16.2 per cent. were not notified; of 18 deaths from tuberculous meningitis 17, or 94.4 per cent. were not notified; and of 29 deaths from other forms of the disease 19, or 65.5 per cent. were not notified.

In looking for the causes of failure or delay in notifying it must be recognised in the first place that many cases run an acute course and that diagnosis in these cases (especially in the meningitis cases) is often extremely difficult. After allowance is made, however, for these types of cases there still remain a large number of cases in which the delay can only be ascribed to one of two causes, namely, failure on the part of the patient to consult his doctor until his symptoms are well developed, or failure on the part of the general practitioner to utilise the Dispensary organisation at an early stage.

The remedies for these conditions are obvious; on the one hand there is the necessity for educating the public to the dangers of the disease, and impressing upon them the paramount importance of consulting their doctors at the first sign of ill-health; on the other hand there is the necessity for closer co-operation of the practitioners with the Tuberculosis Dispensary. It must be recognised that it is often extremely difficult,

even for the expert, to diagnose the disease in its early stages; this is all the greater reason for the practitioner, in doubtful cases, to avail himself of the assistance, clinical or bacteriological, placed at his disposal.

(4). PREVENTION AND TREATMENT.

The provisions for dealing in a satisfactory manner with the disease in Preston may be said to have begun in 1913 with the appointment of a Special Tuberculosis Medical Officer and the inception of the present Dispensary system. From that time onwards considerable progress has been made, and, although at the present time the scheme cannot be said to be complete and comprehensive, the main elements have become firmly established.

The scheme in force during 1920 may be classified under the following divisions :—

(a) DISPENSARY.

This is situated at 2 North Road, Preston. The building is well adapted to the purpose, is central, and convenient of access from all parts of the town; hence there is no necessity for sub-dispensaries.

The Dispensary is the first and principal unit and constitutes the administrative centre of the scheme—here the Tuberculosis Officer has his headquarters, and all the records and other documents relating to patients are kept.

The Staff consists of a whole-time Tuberculosis Officer (who is also Assistant Medical Officer of Health), a clerk, and two nurses. The Tuberculosis Officer is responsible for the administrative and clinical work of the Department subject to the supervision of the Medical Officer of Health who is Chief Tuberculosis Officer. The writer has been Tuberculosis Officer for the greater part of the year, taking up duties in the middle of February, 1920. For the first six weeks of the year the work was done by Dr. Mary Lowry who had acted as temporary Tuberculosis Officer since the resignation of Dr. Hewat in October, 1919.

The functions which the Dispensary performs are to serve as—

- (1) Receiving house and centre of diagnosis.
- (2) Clearing house and centre for observation.
- (3) Treatment centre.
- (4) Information bureau and educational centre.

It will thus be seen that the whole scheme pivots round the Dispensary. Here new patients and contacts are examined and the necessary forms of treatment decided upon. Doubtful or suspicious cases are kept under close observation and subjected to re-examination from time to time until a definite diagnosis is established.

The systematic examination of "contacts" is a very essential part of the scheme as it is by this means that many of the cases are secured in the earlier stages. Attempts are made to secure the attendance of these cases through the visits and advice of the Tuberculosis Nurses, and meet with a certain measure of success, though it is not always easy to persuade persons who are apparently in good health to submit to medical examination.

In addition to the new patients a large number of old patients attend the Dispensary regularly, either for purposes of observation or to receive treatment. The number of these patients remains large and their regular attendance tends to make the Dispensary degenerate into a busy out-patient department. A large part of the Tuberculosis Officer's time is thus occupied in this kind of work when he could be more advantageously employed otherwise.

There is no doubt that a good deal of this treatment could be equally well administered through the general practitioner, leaving the Tuberculosis Officer freer to fulfil his more specialised functions. The system of providing this general and non-specialised treatment seems, however, to have become well established, not only here but elsewhere, and it is difficult to see how it can be materially reduced under the present arrangements. Of course, there will always be a certain number of cases who, for various reasons, must be treated at the Dispensary.

As regards the use of tuberculin for purposes of treatment this has been practically abandoned. Only two cases received this form of treatment during the year under review. It is not necessary to enter here into any discussion on this controversial subject.

At the Dispensary there is also the Municipal Laboratory where sputum examinations and other bacteriological investigations are carried out on the spot by the Tuberculosis Officer. A summary of the work done under this heading will be found in another part of the report.

There is a close co-operation between the Dispensary and the School Medical Service. This is maintained by the sending of all suspicious cases by the School Medical Officer to the Dispensary for examination, and by the interchange of written reports between the School Medical Officer and the Tuberculosis Officer. During the year 69 cases of school children were thus referred to the Dispensary.

(b) DOMICILIARY TREATMENT.

This is closely bound up with the Dispensary organisation, though it must be confessed that at present it constitutes the weakest link in the chain. The reasons for this are not far to seek when we consider the unfavourable environmental conditions under which many of the patients have to live.

All notified cases of tuberculosis receive, while at home, Dispensary supervision through the Tuberculosis Officer and Nurses, in addition to the treatment they receive from their own medical attendants. Practically all patients are, of necessity, at some period, either before or after receiving institutional treatment, on domiciliary treatment. These are visited at regular intervals, varying with the necessities of the case, by the Nurses. They are instructed in the necessary hygienic precautions to prevent the spread of infection, and are supplied with disinfectants and sputum flasks, when necessary. In addition all infected houses are disinfected by the Public Health Department after removal of patients to institutions, after death, and on such other occasions as may be considered necessary.

Co-operation with general practitioners is secured by written reports by the Tuberculosis Officer on all cases sent to him. In addition, personal consultations are frequently held between the practitioner and the Tuberculosis Officer.

The system of periodical reports by general practitioners on insured patients receiving domiciliary treatment has been in abeyance during the war, and has not been re-introduced by the Insurance Committee during the year under review. It is hoped, however, to have these reports submitted again in the next year as they are of considerable value in estimating the progress of cases.

There has been no scheme of providing extra nourishment for tuberculous patients in general, either by the Council or by the Insurance Committee. Discharged tuberculous soldiers and sailors have, however, received through the Local War Pensions Committee and as ancillary to domiciliary treatment, prescribed extra nourishment on the recommendation of the Tuberculosis Officer.

There has been no organised scheme of providing suitable employment for patients, nor has there been any provision of shelters for patients receiving domiciliary treatment.

(c) INSTITUTIONS.

Pending the completion of the Corporation's own Sanatorium patients were sent during 1920 to various institutions where beds were retained, either by the Corporation or by the Preston Insurance Committee.

The distribution of the beds was as follows :—

TABLE IVK.

Institution	Authority maintaining beds	Number of beds normally available	Type of Case
Crossley Sanatorium, Delamere, Cheshire	... Preston Insurance Committee	7 { 4 male 3 female	Early Pulmonary
Dean Head Sanatorium, near Leeds	... „	5 male	„
Stanhope Sanatorium, County Durham	... „	8 male	„
Bowdon Sanatorium, Cheshire	... Preston Corporation	11 { 4 female 7 children	„
Freshfield Children's Sanatorium, Southport	... „	6, children	„

The above beds were continuously occupied throughout the year, and towards the end of the year it was considered that additional female accommodation was required—4 beds for women were therefore retained at Wolsingham Sanatorium, County Durham, and these were occupied from the middle of October onwards.

For the more advanced type of cases there is the Corporation's own institution, "The Chestnuts" Sanatorium, Ribbleson, Preston. This institution was opened in June, 1919, and has continued to perform a very useful part in the scheme since then. There is accommodation for 16 patients (5 men and 11 women or children) and the beds are always occupied. The male beds are usually occupied by discharged soldiers who were not fit to be sent away to other Sanatoria—it has, however, happened on several occasions that patients have improved sufficiently to be sent away for a further period of treatment to one or other of the above-mentioned institutions.

This institution has proved very valuable in helping to isolate the highly infectious cases, and the only trouble has been that the accommodation is too limited to deal with all that type of cases. It is hoped that when the Corporation's new Sanatorium is built the "Chestnuts" may be utilised in some other way in the scheme. There is as yet no colony and this is one of the uses to which the institution may be put—at least as a basis for future extension along these lines. Land, gardens, hot-

houses and out-buildings exist already for the training of ex-service men in the various suitable occupations.

The Tuberculosis Officer is the Medical Superintendent of the institution and the nursing staff consists of a Matron and three Nurses.

The beds at the above mentioned institutions comprise the residential accommodation for pulmonary purposes, giving a total number of 57 beds available at the end of the year.

In addition to the above there are the John Reynold's and Ormerod Convalescent Homes at Lytham and St. Annes respectively, to which children are sent during the Summer months through the agency of a voluntary organisation. These institutions have continued to play a very useful part, mainly from the preventive side, though they are not strictly in the Corporation's scheme. A large number of "contact," delicate, and so-called "pre-tuberculous" children have had periods at these seaside homes and there is no doubt that by this means many children have benefited considerably.

The Open Air School, opened in June, 1919, has continued to do good work. Cases suitable for attending the school are recommended by the Tuberculosis Officer—the cases chosen are similar in type to those sent to the Convalescent Homes and in addition, children who have had a period of Sanatorium treatment and in whom the disease is apparently inactive. Care is taken to prevent the admission of "open" or infectious cases.

Fuller details of the work of this School will be found in the report of the Superintendent School Medical Officer.

Turning now to surgical or non-pulmonary tuberculosis it is to be regretted that hitherto no definite provision for the treatment of such cases has been included in the scheme. A large number of such cases have from time to time received treatment at the Preston Royal Infirmary, but this has not been done through the Dispensary Organisation. Towards the end of 1920 it was felt that provision should be made for these cases and accordingly 4 beds have been reserved at the Royal Liverpool County Hospital for Children, Heswall, Cheshire. By the end of the year two of these beds were occupied and the other two were taken early in 1921. The type of cases sent there were those requiring prolonged treatment, e.g., hip and spine cases. Later it was felt that further accommodation would be necessary for the more acute type of surgical case and two beds were also reserved by the Corporation at the Preston Royal Infirmary.

The plans for the Corporation's new Sanatorium at Ashley Hall, Longridge, were completed and approved during 1920. Provision is made for 80 beds, 50 for early and 30 for the more advanced type of pulmonary cases. Unfortunately, the erection of this building is in abeyance at present owing to the financial condition of the country. It is quite likely that when the time does come to commence building some revision of the number of beds may be necessary.

(d) DENTAL TREATMENT.

There is up to the present no scheme for the provision of dental treatment for tuberculous cases in general. This is a matter essential to the successful treatment of the disease and if the scheme is to be comprehensive it will be necessary for some arrangements to be made either at the dental clinic or with the dental practitioners.

At present dental treatment is provided for discharged tuberculous soldiers whose disability has been accepted as attributable to or aggravated by the war. The treatment is provided on the recommendation of the Tuberculosis Officer to the Local War Pensions Committee.

(e) AFTER-CARE.

It is to be regretted that the scheme for the provision of a Care Committee, which has been put forward on more than one occasion, has not yet materialised. Like many other schemes, however, its delay can only be attributed to present financial conditions.

It is nevertheless essential that if the beneficial results of Sanatorium treatment are not to be to a large extent nullified some systematic scheme of care and after-care must be put into operation. Careful supervision of the home life of the tuberculous patient, the provision of suitable employment, and help in many directions to necessitous families are all essential if we are to obtain lasting results.

No scheme can be complete without this care and after-care work and it is to be hoped that the start of this work need not be delayed much longer.

5. WORK DONE DURING THE YEAR.

The following is a summary of the work carried out under the Dispensary Organisation :—

(1) At the Dispensary.

During the year 473 new patients were examined by the Tuberculosis Officer, either at the Dispensary or at their own homes—this is the same number as in the previous year.

Old patients made 3,823 attendances at the Dispensary for treatment, reports, or observation purposes.

Of the new patients 247 were considered to be suffering definitely from tuberculosis in some form or other—200 from pulmonary and 47 from non-pulmonary tuberculosis.

The pulmonary cases were classified according to the stage of the disease, as follows :—

Stage 1 (Turban) with slight general toxaemia	108
„ 1 „ marked „ „	35
„ 2 „ slight „ „	25
„ 2 „ marked „ „	23
„ 3 „ slight „ „	4
„ 3 „ marked „ „	5

It should be pointed out, however, that the above system of classification, though widely adopted at present is not altogether satisfactory. There is no sharp line of demarcation between the stages, and the personal factor of the examiner enters largely into the question.

In the 47 non-pulmonary cases who attended the disease affected the different tissues of the body as follows :—

Lymphatic Glands	21
Hip Joint	4
Spine	2
Abdomen (peritoneum, mesenteric glands).	8
Other Organs (skin, bones, etc.)	12

Military cases again provided a considerable portion of the work at the Dispensary owing to the reports which it is necessary for Tuberculosis Officers to furnish to Pensions Medical Boards and Local War Pensions Committee.

During the year 88 of the 473 new cases were discharged soldiers or sailors. Of these 57 were found to be suffering from tuberculosis, and, as they received preferential treatment it was possible to grant Sanatorium treatment to all those who were considered suitable and who were willing to accept it.

In addition to the above there were 47 old cases on whom reports were furnished to the Pensions Medical Board, and 376 reports were rendered to the Local War Pensions Committee.

(2) Work of the Tuberculosis Nurses.

There has been no change in the Nursing Staff in 1920. Nurse Edmondson and Nurse Jones having remained throughout the year. Their duties may be summed up under the following heads :—

(a). Visiting patients in their homes both to teach and to ascertain how far preventative hygienic measures are being carried out. The town is divided into two halves for this purpose and each Nurse has her own district.

(b). Investigation into and reports on the actual housing conditions, and defects, if any.

(c). Attendance at the Dispensary.

(d). Arranging for and assisting in the conveyance of patients to and from institutions.

During the year the Nurses made 280 visits to the homes of new patients and 3,136 re-visits to those of old patients.

The following table, compiled from the Nurses' house reports, deals with the numbers of persons and rooms in infected houses, and is intended to shew to what extent overcrowding prevails among the cases investigated. The figures above the heavy line shew the number of families where there were more than two persons per room—they number 15 families consisting of 130 persons. As an example of reading the table it will be seen that, among the 4-roomed houses there were 9 families of 2 persons each, 21 of 3 persons each and so on.

TABLE IVL.

No. of Rooms in Infected Houses.	Number of Persons.												TOTAL.	
	1	2	3	4	5	6	7	8	9	10	11	12	Houses	Occupants.
	Number of Families.													
2 Rooms ...	1	2	1	...	1	...	...	...	...	...	...	...	5	13
3 Rooms ...	1	8	9	14	10	4	3	2	2	2	...	...	55	249
4 Rooms ...	...	9	21	15	10	13	11	4	3	...	...	...	86	405
5 Rooms ...	...	3	7	12	12	15	11	7	4	1	1	1	74	427
6 Rooms ...	...	1	1	4	2	7	4	3	...	...	...	...	22	125
7 and over ...	...	...	...	...	...	...	1	...	...	...	1	...	2	18
Families ...	2	23	39	45	35	39	30	16	9	3	2	1	244	...
Persons ...	2	46	117	180	175	234	210	128	81	30	22	12	...	1237

(3) Residential Treatment.

During the whole of 1920 the administration of Sanatorium Benefit remained in the hands of Insurance Committees, consequently insured persons were granted Sanatorium treatment by the Insurance Committee to whom the Tuberculosis Officer acted as Medical Adviser.

The greater part of the administrative work in this connection was carried out at the offices of the Insurance Committee and it was essential for the smooth working of the scheme that there should be a close co-operation between the Clerk to the Insurance Committee and the Tuberculosis Officer. In Preston this was always maintained and the advice and help of the Clerk to the Insurance Committee have been of great service to the Dispensary Organisation.

The following table shews the institutions to which patients have been admitted, either under the Council's scheme or through the Preston Insurance Committee, during the year ended December 31st, 1920. The table also divides the patients into insured and uninsured and indicates the average duration of stay.

TABLE IV_M.

Institution.	Insured.				Uninsured.			
	Males	Females	Total Cases	Average duration of stay weeks days	Males	Females	Total Cases	Average duration of stay weeks days
Crossley Sanatorium ...	8	12	20	14 4	...	1	1	14 0
Bowdon „ ...	...	..	...	... ..	14	34	48	11 4
Stanhope „ ...	40	...	40	11 2	...	...	...	... ..
Dean Head „ ...	19	...	19	11 3	...	...	...	... ..
Wolsingham „ ...	...	4	4	14 5	...	...	...	... ..
“The Chestnuts” „ ...	17	14	31	14 0	4	21	25	14 6
Freshfield „ ...	...	...	...	... ..	5	14	19	18 0
Heswall Institution ...	...	...	...	... ..	1	1	2	26 0
TOTALS ...	84	30	114	12 5	24	71	95	14 0

There were thus 209 cases which received residential treatment during the year. In the cases of Wolsingham and Heswall beds were only acquired towards the end of the year.

Of the 95 uninsured cases treated 50 were children under the age of 14 years.

(6). THE FUTURE.

On looking back over the statistics and history of Tuberculosis we find that there has been a slow and gradual but definite decline in the incidence and mortality of the disease : this broad fact is encouraging and gives us hope for the future.

When we look further to see how this decline has been effected we find it due not to any single measure or isolated circumstance but to combined factors and co-ordinated efforts.

In the war against tuberculosis there is no quick way to victory—no specific has yet been discovered to cure the disease, and it is more than doubtful if the conquest can be achieved along purely medical lines of action.

Tuberculosis is much more than a mere medical problem—"it is the expression of an incomplete civilisation"—and success can never be attained by regarding it from the medical aspect alone. It must be clearly recognised that a malady which is so universal and permeates our life to such an extent is a grave social problem of the first importance.

Sir George Newman, Chief Medical Officer of the Ministry of Health, in his Annual Report for 1920, says "There can be but one way of grappling with such a malady and that is the broadest possible attack. That has succeeded in the past and it alone will succeed in the future. It is futile and misleading to take a narrow outlook or regard any single or isolated method as a panacea. An improved environment is not enough; sound nutrition and an open air life are not enough; the use of tuberculin or any other drug is insufficient; the dispensary, the sanatorium, the hospital, or the village settlement is each in itself inadequate to deal with all the forms and degrees of this protean malady, which has social as well as physical aspects; a model way of life and hygiene will not alone meet the case—all are necessary and each must be applied with common sense and understanding."

Any measures which tend to prevent the spread of infection, which tend to improve the general standard of life, and which tend to increase the powers of resistance must be applied. Among these the education of the public, the stamping out of tuberculosis in cattle, and reforms in housing conditions stand out prominently.

The lessons to be learned are that we must continue to press the attack with vigour and from all sides; our present schemes are on the right lines, but they must be made more comprehensive, **more complete and more co-ordinated**. There is much yet to be done.

VENEREAL DISEASE.

The scheme of the Council with regard to the treatment of Venereal Disease is one whereby the work is undertaken by the Preston Royal Infirmary on behalf of the Council by an agreement. The gross liabilities of the Infirmary incurred under this head are met by the Council. The work is carried out in the ordinary premises of the Infirmary by a rota of the Hospital Staff.

There are two Clinics weekly for men, and one for women.

The scheme enables adequate treatment to be furnished for cases of Syphilis, but the arrangements for the treatment of Gonorrhoea are not satisfactory. The difficulty is being met by a recasting of the arrangements which is now in process of completion.

Private Medical Practitioners are co-operating fully with the Authority and assuring the success of the scheme as far as possible.

The readiness of the public to avail themselves of the facilities is seen in the appended tables; the weakness as regards Gonorrhoea, already referred to, may be observed in the comparatively small number of women treated for this disease.

The new scheme shortly to be put into operation will enable the treatment of Gonorrhoea, particularly intermediate treatment, to be placed on a satisfactory footing.

No facilities are available for "early treatment" or disinfection of persons who have exposed themselves to infection and are willing to take the necessary measures to avoid contracting venereal diseases.

There are approximately 50 medical practitioners who are qualified to receive free supplies of Salvarsan substitutes.

In 253 cases Salvarsan substitutes have been supplied to medical practitioners by the Council.

670 Specimens, consisting of 645 for the determination of Wasserman reaction, 8 for the detection of the Spirochaete, and 17 for the detection of the Gonococcus have been forwarded by private medical practitioners.

The Preston Branch of the National Committee for Combating Venereal Diseases has continued its activities under the able Chairmanship of Alderman Henry Cartmell. Educational films such as "The End of the Road," "How Life Begins," and "The Shadow," have been shewn. Lectures by prominent speakers for mixed audiences and for the sexes separately have been enthusiastically received by the public. By the kindness of the Education Committee, the Branch have been able to inaugurate a series of Parents' Conferences, dealing with sex education in the schools and homes, to be held in the various schools. Sufficient praise cannot be given to the Branch for the energetic manner in which they have attacked this subject.

TABLE IV_N.

Salvarsan Substitutes supplied to Medical Practitioners during 1920.

(Not including supplies to V.D. Clinic).

GALYL.			NEOKHARSIVAN.				NOVARSENOBILLON.					
.25	.30	.45	.45	.6	.75	.9	.15	.30	.45	.6	.75	.9
...	12	6	1	...	...	...	...	4	63	4	163	...

TABLE IV_O.

Table showing results of Examinations carried out for the Diagnosis of Venereal Diseases at the University,
Department of Pathology, Manchester, during the Year 1920.

SYPHILIS.					GONORRHOEA.				Total Number of Specimens Examined
WASSERMANN REACTION.					SPIROCHÆTÆ.				
					Total submitted for Examination	Positive	Negative	Not Examined	
Total submitted for Examination	Positive	Negative	Not Examined		Total submitted for Examination	Positive	Negative	Not Examined	
645	302	342	1		8	2	6	...	670
					17	7	10	...	

TABLE IV_P.

A.—Total number of persons dealt with during the year at or in connection with the out-patient Clinic.

	Number of persons who were under treatment or observation on January 1st, 1920.	Number of persons dealt with during the year for the first time.	TOTAL.
Syphilis	147	203	350
Soft Chancre	9	2	11
Gonorrhoea	33	91	124
Conditions other than venereal ... ..	...	136	136
TOTAL ...	189	432	621

B.—Total attendances of all patients during the year at the Out-patient Clinic—3,467.

C.—Aggregate number of “ In-patient days ” of treatment during the year—Nil.

RETURN relating to all persons who were treated at the Treatment Centre at Preston Royal Infirmary during the year ended 31st December, 1920.

	Syphilis		Soft Chancre		Gonorrhœa		Conditions other than Venereal		TOTAL	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
1. Number of persons who, on the 1st January, 1920, were under treatment or observation for :—	102	45	9	...	31	2	...	...	142	47
2. Number of persons dealt with during the year at or in connection with the out-patient Clinic for the first time and found to be suffering from :—										
Syphilis only	136	53	...	...	...	...	...	...	136	53
Soft Chancre only .....	...	...	I	...	...	...	...	...	I	...
Gonorrhœa only .....	...	...	...	...	73	5	...	...	73	5
Syphilis and Soft Chancre	I	...	I	...	...	...	...	...	2	...
Syphilis and Gonorrhœa	12	I	...	...	12	I	...	...	24	2
Gonorrhœa and Soft Chancre .....	...	...	...	...	...	...	...	...	...	...
Syphilis, Soft Chancre and Gonorrhœa .....	...	...	...	...	...	...	...	...	...	...
Conditions other than venereal .....	...	...	...	...	...	...	99	37	99	37
Total—Item 2	149	54	2	...	85	6	99	37	335	97
Total—Items 1 and 2	251	99	11	...	116	8	99	37	477	144
3. Number of persons who ceased to attend the out-patient Clinic (a) before completing a course of treatment for ... (b) after completion of a course of treatment, but before final tests as to cure of	26 52	12 17	4 ...	... ...	*44 ...	*2 ...	... ...	... ...	74 52	14 17
4. Number of persons transferred to other Treatment Centres after treatment for	9	2	...	...	2	...	...	...	11	2
5. Number of persons discharged from the out-patient Clinic after completion of treatment and observation for	60	25	7	...	37	4	99	37	203	66
6. Number of persons who, on the 1st January, 1921, were under treatment or observation for :—	104	43	...	...	33	2	...	...	137	45
Total—Items 3, 4, 5 and 6	251	99	11	...	116	8	99	37	477	144
7. Total attendances of all persons at the out-patient Clinic who were suffering from :—	1872	630	39	...	616	65	186	59	2713	754
8. Aggregate number of “ In-patient days ” of treatment given to persons who were suffering from :—	...	...	...	...	...	...	...	...	nil.	nil.
9. Examination of Pathological material :—										
(a) Specimens which were examined at, and by the Medical Officer of, the Treatment Centre										
(b) Specimens from persons attending at the Treatment Centre which were sent for examination to an approved laboratory										
					For detection of					
					Spirochetes	Gonococci	Other Organisms		For Wassermann Reaction	
					Nil.	Nil.	Nil.		Nil.	
					Nil.	12	...		506	

* No facilities for treatment at present, Home Irrigation planned.

TABLE IVR.

Statement showing the services rendered at the Treatment Centre during the Year,
classified according to the areas in which the patients resided.

	Preston	Lancs.	Barrow- in- Furness	Bolton	Total
A. Number of persons from each area dealt with during the year at or in connection with the out-patient Clinic for the first time and found to be suffering from :—					
Syphilis	147	56	...	...	203
Soft Chancre	2	...	...	...	2
Gonorrhœa	73	18	...	...	91
Conditions other than venereal	94	40	1	1	136
Total	316	114	1	1	432
B. Total number of attendances at the out-patient Clinic of all patients residing in each area	2482	981	2	2	3467
C. Aggregate number of "In-patient days" of all patients residing in each area .....	...	...	...	...	...
D. Number of doses of Salvarsan substitutes given in the					
1. Out-patient Clinic					
Novarsenobillon..... .45	177	75	...	...	} 1356
..... .75	741	363	...	...
Hg.....	1213	527	...	...	1740
Wasserman Tests	347	157	1	1	} 518
Gonococcus Tests	6	6	...	...
Gonorrhœa Outfits, Medicines.....	817	340	...	...	1157
2. In-Patient Department					
to patients residing in each area .....	...	...	...	...	...
E. Give the names of Salvarsan substitutes used in the treatment of Syphilis and the usual initial and final doses ...	Novarsenobillon .45 to .75.				
F. State the number of doses of Salvarsan substitutes usually given in a full course of treatment	Six.				
G. State in what proportion of cases, approximately, Salvarsan substitutes are used in the treatment of Syphilis	The whole.				
H. State the nature of tests applied in deciding as to discharge of patients referred to in Item 5 on previous page	Two negative Wasserman tests, sometimes three, according to circumstances. It is impressed upon all patients that they must attend periodically for two years after discharge from treatment for further tests and observation, and treatment, if necessary.				

V.—Maternity and Child Welfare.

Judging by the standard of previous years the health of infants has improved. A reference to Table IB. on page 12 and Table IE. on page 15 shews that the number of births registered is the highest since 1909, and is approaching the three thousand mark above which it stood from 1853 to 1909.

The Birth rate per 1,000 living was 24.43, a figure which has not been exceeded since 1909. The Birth rate was highest in Park, Trinity and Deepdale Wards and lowest in Ashton, Avenham and Maudland Wards. The rate is slightly lower than that in England and Wales as a whole and a little lower still compared with other County Boroughs. The highest Birth Rate in the 20 County Boroughs of Lancashire and adjoining area obtained in Liverpool (30.1) and the lowest in Blackpool (16.7). Preston is 8th in order of Birth rate. (Table If. page 16).

The deaths of infants numbered 301 representing a mortality rate per 1,000 born of 101. This rate compares unfavourably with one of 80 in the country as a whole and of 85 in the 96 Great Towns. London with its gigantic population returns the remarkable figure of 75. The twenty neighbouring great towns (vide Table If.) shew wide variation from 50 in Southport to 129 in Wigan and 12 of them have better figures than Preston. The variation of the rate seen in different towns is repeated in the Wards of the Borough, Fishwick and Ribbleton with a birth rate approximating to that of the whole town, 23.48 and 23.37 respectively, experienced an Infant Mortality of 66 and 69, probably the best figures yet reported in our history. While Christ Church and St. Johns with approximately similar birth rates experienced a heavy mortality, 140 and 123 respectively.

TABLE VA.
Distribution of Births and Infantile Mortality.

WARD.	Estimated Population	Registered Births	Birth Rate per 1000 living	Deaths of Infants	Infantile Mortality per 1000 Births
UNKNOWN ... ..	...	...	...	1	...
St. JOHN'S	12,395	309	24.93	38	123
AVENHAM	7,511	135	17.97	12	89
CHRIST CHURCH	8,752	222	25.36	31	140
ASHTON	9,224	159	17.24	16	100
MAUDLAND	9,958	206	20.69	23	112
ST. PETER'S	11,996	322	26.84	37	115
MOORBROOK	9,535	216	22.65	23	107
PARK	15,053	451	29.96	41	91
TRINITY	10,146	292	28.78	26	90
DEEPDALE	10,586	275	25.97	26	94
RIBBLETON	9,256	216	23.34	15	69
FISHWICK	7,721	181	23.44	12	66
TOTALS	122,133	2984	24.43	301	101

Nett Deaths from stated Causes at various Ages under One Year of age during the Year

CAUSE OF DEATH.	Under 1 Week.	1 - 2 Weeks.	2 - 3 Weeks.	3 - 4 Weeks.	Total under 1 Month.	1 - 3 Months.	3 - 6 Months.	6 - 9 Months.	9 - 12 Months.	Total Deaths under One Year.
All Causes:—										
Certified	37	12	9	12	70	29	39	33	33	204
Uncertified	7	...	...	...	7	3	...	1	2	13
Small Pox .....	...	...	...	...	...	...	...	...	...	...
Chicken Pox .....	...	...	...	...	...	...	...	...	...	...
Measles .....	...	...	...	...	...	...	...	1	1	2
Scarlet Fever .....	...	...	...	...	...	...	...	...	...	...
Whooping Cough .....	...	...	...	...	...	...	2	2	3	7
Diphtheria and Croup .....	...	...	...	...	...	...	...	...	1	1
Erysipelas .....	...	...	...	...	...	...	...	...	...	...
Tuberculous Meningitis .....	...	...	...	...	...	...	...	...	...	...
Abdominal Tuberculosis .....	...	...	...	...	...	...	2	...	...	2
Other Tuberculous Diseases .....	...	...	...	...	...	1	3	1	1	6
Meningitis (not Tuberculous) .....	...	...	...	...	...	1	...	...	1	2
Convulsions	2	2	2	2	8	4	3	3	1	19
Laryngitis .....	...	...	...	...	...	...	...	...	...	...
Bronchitis .....	...	2	2	...	4	9	6	6	3	28
Pneumonia (all forms) .....	...	...	...	...	...	3	8	9	7	27
Diarrhoea .....	...	2	...	1	3	...	4	1	1	9
Enteritis .....	...	...	2	...	2	4	2	1	...	7
Gastritis .....	...	...	...	1	1	1	1	2	...	6
Syphilis	1	...	...	1	2	2	...	...	...	5
Rickets .....	...	...	2	...	2	...	...	...	...	2
Suffocation, overlying .....	...	...	...	...	...	1	2	...	...	3
Injury at Birth	3	...	...	...	3	...	...	...	...	3
Atelectasis	6	2	...	...	8	...	...	...	...	8
Congenital Malformations	5	4	1	3	13	1	...	...	1	15
Premature Birth	46	8	7	1	62	6	1	...	...	69
Atrophy, Debility and Marasmus	10	4	1	7	25	22	6	5	...	58
Other causes	11	3	...	3	17	...	2	...	3	22
Total.....	84	27	20	19	150	55	42	31	23	301

Turning now to the causes of and ages at death as set out in Table VB., it is seen that of 301 deaths, one-half (150) were under one month old. This figure is higher than the proportion in the whole Country (35.80). Of these 150, 84 were under one week old. Sir George Newman in his report to the Minister of Health for the year 1920 states that the Infant Death Rate "has declined least in the first three months in which period it is heaviest. In other words, the decline has been in diarrhoeal and respiratory diseases rather than in causes of death under three months."

The bulk of the mortality under one month is borne by Premature Birth and Atrophy Debility and Marasmus, and these two causes together with Bronchitis and Pneumonia, which come into operation in the succeeding months, together account for nearly 60 per cent. of the deaths. Diarrhoea, which was formerly a heavy cause of mortality, accounted only for 16 deaths. The number of deaths due to Premature Birth, Atrophy Debility and Marasmus, Congenital Malformation, together with the number of Still Births notified (129) produce a total of 271 potential lives lost through Ante-Natal causes, many of which are within the scope of our existing preventive organisation.

There are two factors which have a direct bearing upon the health of Infants—the employment of women in the factories and the generally observed tendency to abandon natural feeding for the bottle. As far as my information goes the employment of mothers of young children has been comparatively rare of recent years although they are at present gradually finding their way back to industrial work. Should this practice again become common it will have its inevitable repercussion not only upon the Infantile Mortality but upon the health of the survivors. The practice of weaning the infants as early as possible is regrettably common. It is done partly to obtain more time for pleasure or duties and partly for fashion's sake. Not to purchase a packet of some patent dried milk at the weekly visit to the Clinic is to shew one's self not among the elect.

Be the reasons what they may I am assured that it is the general experience to find the child of to-day weaned or partly weaned before two months old.

The part played by Syphilis is not known, but I fear is very great—of all diseases none is so fatal to embryonic and neo-natal life.

Illegitimate children have a very much smaller chance of survival to one year of age than legitimate children. In England and Wales the former has twice as high an infantile mortality as the latter. In Preston the discrepancy is not so great, the respective mortality rates being 120 and 99. There were 174 illegitimate births compared with the same number last year and a decennial average of 158. They formed 5.8 per cent. of the total. The comparatively low mortality experienced reflects

great credit upon the Health Visitors who have paid particular attention to these children.

TABLE Vc.

Year	Legitimate Births	Deaths of Legitimate Children	Rate per 1000 born	Illegitimate Births	Per cent of total	Illegitimate Deaths	Rate per 1000 born
1911	2545	...	...	181	...	...	...
1912	2583	...	...	141	...	...	...
1913	2722	...	...	142	...	...	...
1914	2671	...	...	147	...	...	...
1915	2387	...	...	132	..	...	...
1916	2150	...	...	143	..	...	...
1917	1831	...	...	167	...	...	...
1918	1754	...	...	181	...	...	...
1919	1984	...	...	174	...	...	...
1920	2810	280	99	174	5.8	21	120

Owing to the daily domestic strain borne by the average mother it will never be possible to eliminate all preventable causes of infantile death, but it is clearly established that the mass of mortality is due to conditions which affect the unborn and newly-born child. These conditions can most effectually be met by enlarging the scope of our work and including in it facilities for their investigation and treatment.

Dr. Mary Lowry reports as follows:—

(1). INSPECTION OF MIDWIVES.

During the year 1920 there were 32 names on the roll of midwives for the Borough. Of these 15 were trained and 17 untrained. The ranks of the uncertified are being thinned by death and illness and their places filled by young and well-trained midwives. So far we have not found any difficulty in getting new midwives to settle in the town, but this difficulty may arise if the public are not made to realize that the practice of midwifery is a highly skilled and highly trained calling requiring patience, tact and a strong constitution, and that a midwife to be successful in her work ought to be paid a reasonable fee for her professional services. Fortunately the idea that any untrained woman is good enough to attend a confinement is practically exploded and general practitioners now very wisely object to attend a maternity case unless a certified midwife is in attendance. This is borne out by the fact that out of the 2,984 births registered 1,877 were attended by midwives alone, 819 by doctors and midwives and only 285 by doctors and handy women or monthly nurses. The work of the midwives in Preston is very good especially as regards the care of the eyes of the new-born child—a most important part of the work of a midwife. There have been 75 routine inspections made and 24 special interviews with midwives. Eleven midwives have been inspected during their attendance at a case and in each case the work has been highly satisfactory.

(2). GENERAL ARRANGEMENTS.

This department of public health work is controlled by the Maternity and Child Welfare Committee, and the work is carried on by the Maternity and Child Welfare Medical Officer with the assistance of five Health Visitors. The town, for the purposes of the work of the Health Visitors, is divided into five areas, corresponding with those of the Sanitary Inspectors. The number of visits and re-visits paid will be seen in Table VD.

The value of the work done at these visits can hardly be over-estimated. It is, from the very nature of things, uphill work but there is no doubt that the constant supervision and individual teaching of the mothers has played a considerable part in the reduction of the Infantile Mortality throughout the Country.

The following paragraphs give an account of the work done during the year.

INFANT WELFARE CENTRES.

The following Table shews the total attendances at the five Infant Welfare Centres in the Borough :—

Fylde Road Centre	2397
Walker Street Centre	2770
Deepdale Mill Street Centre	2587
Manchester Road Centre	1899
Savoy Street Centre	1001

This makes a total of 10,654 attendances compared with 8,208 for the year 1919.

The following Table shews the approximate number of children on the Register of each Centre :—

Fylde Road Centre	380
Walker Street Centre	550
Deepdale Mill Street Centre	370
Manchester Road Centre	300
Savoy Street Centre	230
<hr/>	
Total	1830
<hr/>	

The same work is being carried on at these Centres as formerly, viz., regular weighing of babies, instructions to the mothers in the care and management of infants, lessons in cutting out and sewing and demonstrations in cookery, but as the numbers increase it is becoming exceedingly difficult for the Health Visitors to give regular talks and demonstrations to the mothers. Medical supervision of each Centre

is carried out regularly once a fortnight in the case of four Centres and once a week in the case of Walker Street where the largest numbers attend weekly. The babies requiring treatment beyond the regulating of diet, etc., are sent on to their private Doctor, to the Infirmary or to the Treatment Centre, Snow Hill, as the case may be.

ANTE-NATAL WORK.

This work, begun in 1919, is gradually becoming more wide-spread and more valuable. Unfortunately a great deal of attention could not be paid to it during the year for want of the full medical staff of the Health Department. In spite of this, however, 215 expectant mothers made 596 attendances at the Infant Welfare Centres where they received instruction in hygiene, etc., while 119 cases (with 203 attendances) were dealt with at the Maternity Clinic at North Road. Of these 119, about 30 per cent. were neo-natal cases and for these it was possible to do a great deal through the patient's own doctor and by sending them for treatment to Hospital. Of the purely ante-natal cases a number were threatened premature births and some of these were fortunately avoided by proper treatment of the mother. In this connection mention may be made of the facts that Home Helps were employed in some instances with marked success. There is a wide field for investigation and experiment in connection with Venereal Disease in Ante-Natal work but there are many difficulties in the way. The treatment of Venereal Disease does not lie within the scope of an Ante-Natal Clinic and on the other hand it is very difficult to suggest to an expectant mother that she needs such treatment. It is, too, a matter of experience that even those mothers who know from what they suffer, have a great reluctance to attend a Venereal Disease Clinic. It may be possible, however, in the future for some co-ordination to exist between the Venereal Disease Clinics of the Country and the Ante-Natal Clinic.

STILL-BIRTHS.

During the year 129 still-births were registered and it has been possible, through midwives' registers and by other means, to investigate the cause of 102. The causation among the 102 investigated falls among the following arbitrarily chosen division :—

Prematurity	44
Accidents of Labour	30
Illness of Mother	9
Abnormality of Child—Monstrosities.....	8
Macerated Foetus	11
<hr/>	
Total	102
<hr/>	

It is almost certain that the eleven macerated foetuses were due to Venereal Disease but how far this disease has been responsible for the large number of 44 premature births it is difficult to say. The accidents of labour have been very varied and out of the number of births, viz., 2,984 registered during the year, 30 is a comparatively small number. At present further investigations are being made by the Health Visitors in connection with all premature births—whether the child be alive or dead. The investigations relate to the work and habits of the parents, the period up to which the expectant mother does industrial work, etc., but these investigations will have to be spread over a number of years before they have any real value. The percentage of still-births to all births registered during the year is slightly lower than that of the previous year.

ATTENDANCE ON WOMEN AT CHILDBIRTH DURING 1920.
(January 1st to December 31st.)

Dis- trict	Number of Births attended by Midwives without Medical help	Number of Births attended by Doctors	Number of Births in which Midwives required Medical help	Total Births Visited	Per cent. of cases attended by Midwives	Per cent. of cases attended by Doctor.
"A"...	393	99	151	643	61%	15%
"B"...	416	40	216	672	62%	6%
"C"...	499	32	212	743	67%	4%
"D"...	298	45	101	444	67%	10%
"E"...	271	69	139	479	57%	14%
Totals	1,877	285	819	2,981 Total Births notified 3002	63%	10%

1920...Percentage of Births visited to total births notified ... 99·3.
1919... " " " " " " ... 94·4.

WORK OF THE INFANT WELFARE VOLUNTARY WORKERS' ASSOCIATION.

The Voluntary Workers belonging to the above Association are responsible for a certain proportion of the work done at the Centres, viz., Clinical work, sewing and cutting-out. These classes are of the greatest value to the mothers and are highly appreciated by them. This Association also provides tea for the mothers out of its own funds—an institution which is much enjoyed. The activities of the Voluntary Workers

do not however end at the Centres. By various methods, funds were raised and a building in Snow Hill was rented, cleaned and painted and a massage centre was established there and a trained masseuse appointed. All the babies treated there are first seen at the Municipal Centres and recommended by the Medical Officer. This Centre was opened on February 16th, 1920, and until the end of the year 36 babies were treated. The cases were Congenital Deformities, Rickets and a few of mal-nutrition. Of the 36 cases the results were very good in 8 instances, good in 12, fair in 5 and unsatisfactory in 4 cases. The last-named had been sent as an experiment but the results obtained did not justify the continuance of the treatment. The other cases were still under treatment at the end of the year.

On the 16th November, a Treatment Centre for minor ailments in children under 5 years was opened in the same building. At this Centre only the children of parents too poor to pay for medical attention (but not in receipt of Poor Law Relief) are treated and up to the end of the year 62 attendances were made. Dr. Rhoda Murdoch was appointed Medical Officer to this Clinic and attends twice a week in the morning. The cases are recommended by the Maternity and Child Welfare Medical Officer from the Municipal Centres and by the Health Visitors from the districts. In time, this Centre will undoubtedly do very good work amongst the poor of the town.

BABIES' HOME.

A Committee of ladies and gentlemen established a Home for Babies in Garstang Road, Fulwood, in November, 1918. The Ministry of Health limited the number of cases to 12, and in February, 1920, the Preston Corporation agreed to give a small grant weekly for every child admitted into the Home from Preston and who had been born in Preston of Preston parents. During the year there has been on an average 8 such babies in this home. In addition to the Corporation grant the parents of the children contribute as much as they can for the child and the other expenses of the Home are met by voluntary subscriptions and by a grant from the Ministry of Health.

BABY WEEK.

A "Baby Week" was held on the 6th and 7th July, in the P.S.A. Rooms, Lancaster Road. The attendance of mothers was very large and taxed the accommodation to its utmost. Members of the V.A.D. gave demonstrations in Home Nursing while the Health Visitors were responsible for the baby bathing. The most pleasing feature of all, however, was the exhibition of garments made by the mothers attending the Centres and articles of food cooked by the mothers who had attended the Cookery Demonstrations so ably given at the Centres by Miss Clarke, teacher of Cookery. We are indebted to the Voluntary Workers' Association and to the St. John's Ambulance Brigade for a very successful "Baby Week."

HOME HELPS.

In accordance with a circular issued by the Ministry of Health a system of Home Helps was established in Preston in April, 1920. A register was formed of women whose character and abilities were known to the Staff of the Infant Welfare and Maternity Department. These women were employed in cases of confinement where the mother had no one to look after the house, but they were only employed where a midwife was in attendance at the birth. Their duties were to keep the house clean, make meals, wash up and get the children, if any, off to school. All those employed did their duties very well and were of great assistance to the patient. During the year 12 Home Helps were employed at 22 cases at a cost of £61 5s. 4d.

(3). PUERPERAL FEVER.

The year 1920 was an unfortunate one as regards Puerperal Fever for 15 cases occurred (one of which was not notified), with 9 deaths. In March, 4 cases were notified in the practice of one midwife, with, however no blame attached to her. The origin of these four had been a very obscure case which was not diagnosed as Puerperal Fever until the others had been infected. Of the four, two died and two recovered. The midwife in question was suspended for some time from her work and no further cases occurred. In April, 3 cases were notified from a Nursing Home in the Borough and this Home was closed for the reception of patients until the Medical Officer of Health was satisfied that there was no risk of any further infection. The other 8 cases were scattered throughout the year and throughout the town in the practices of different doctors and midwives, and no connection could be traced between them. One case had been admitted to the Preston Royal Infirmary from a rural area outside the Borough and the notification had not been transferred to the proper area. An epidemic, however small, of Puerperal Fever is always dreaded but during the year the midwives and doctors concerned co-operated in the most loyal way with the Health Authority in avoiding any further infection.

OPHTHALMIA NEONATORUM.

During the year 21 notifications of Ophthalmia Neonatorum were made, relating to 21 cases. The ultimate result of the treatment is shown as follows:—

Complete cure	18
Loss of sight in one eye with injury to other	1
Loss of sight in both eyes	2

One child in the third group was very unhealthy and died aged 2 months, while the other child suffered from a very virulent infection.

All the cases were visited by the Health Visitors immediately on notification and instructions given to the parents to have the child treated at once.

TABLE Vd.

Summary of Work done during the Year 1920.

		District A.	District B.	District C.	District D.	District. E.	Total.
Visits, Births.	Number of Houses visited	681	660	722	463	476	3002
	" " Found Clean	651	650	673	458	461	2893
	" " Found Dirty	30	10	49	5	15	109
	Children {	Breast Fed	569	581	592	402	2560
		Partially Breast Fed	5	4	9	8	28
		Artificially Fed	94	39	84	27	289
	Occupation of Mother. {	Home Permanently	528	527	541	367	2261
		Home Temporarily	153	132	179	83	725
		Home and Work .....	...	...	2	11	13
Expectant Mothers.	Number of Cases	108	206	105	195	122	736
	Number of Visits	109	115	139	213	122	698
Number of Re-visits to Births		2518	2649	2088	1891	2432	11578
" Tube Bottles in use at Re-visits		34	37	33	51	95	250
Visits, House to House	Number of Houses visited .....	...	...	...	2	5	7
	" " Found Clean .....	...	...	...	...	5	5
	" " Found Dirty .....	...	...	...	2	...	2
Visits, Infectious Disease.	Number of Houses visited	274	227	50	313	335	1199
	Measles	208	122	8	138	220	696
	Whooping Cough	13	130	6	13	44	106
	Chicken Pox	16	27	8	30	19	100
	Mumps, Ringworm, Eczema, Sore Head	32	47	22	34	34	169
	Number of Re-visits, Infectious Diseases	44	...	23	28	19	114
	Number of Visits to Ophthalmia Cases	1	11	4	13	4	33
	" Re-visits to Ophthalmia Cases	8	54	18	55	12	147
	" Visits, Puerperal Fever	2	4	2	...	3	11
	" Re-visits, Puerperal Fever	8	14	19	...	4	45
Visits. Measles, Whooping Cough, Deaths.	Number of Houses visited	1	1	...	2	...	4
	" " Found Clean	1	1	...	2	...	4
	" " Found Dirty .....	...	...	...	...	...	...
Visits, Diarrhoea. Deaths.	Number of Houses visited	3	...	...	1	...	4
	" " Found Clean	2	...	...	1	...	3
	" " Found Dirty	1	...	...	...	...	1
	Children {	Breast Fed	1	...	...	...	1
		Partially Breast Fed .....	...	...	...	...	...
		Artificially Fed	2	...	1	...	3
Infant Welfare Centres	Number of Attendances, Children	2497	2581	2770	1896	701	10445
	" New Cases " 	330	350	355	214	112	1361
	Number of Attendances, Expectant Mothers	151	141	89	95	53	529
	" New Cases " 	59	1	43	25	7	135

VI.—Sanitary Administration.

(1) STAFF.

H. O. PILKINGTON, M.R.C.S., L.R.C.P., Medical Officer of Health, 1874-1920, (deceased, March, 1920).

F. A. SHARPE, M.D.(Lond.), B.S., D.P.H., (appointed August, 1920).
Medical Officer of Health, Schools Medical Officer, Port Medical Officer, Tuberculosis Officer.

JAMES WALKER, M.B., Ch.B., D.P.H., Vict.
Assistant Medical Officer, Clinical Tuberculosis Officer.

MARY LOWRY, M.B., Ch.B., M.A. (Edin.).
Assistant Medical Officer, Maternity and Child Welfare Officer.

A. PORRITT, M.R.C.V.S., Veterinary Surgeon.

W. H. ROBERTS, F.I.C., Borough Analyst.

Chief Clerk : W. SHARP.

Sanitary Inspectors : J. MARSDEN, (Food). W. BARON, C.R.S.I. E. CROSSTHWAITE, C.R.S.I. H. HOLDEN, C.R.S.I. H. D. WRIGHT, C.R.S.I.

Health Visitors : M. M. BOTTOMLEY, E. A. COOPER, L. ROSS, E. PARK, A. PICKLES.

Tuberculosis Nurses : J. EDMONDSON, M. JONES.

(2) HOSPITAL ACCOMMODATION.

The Hospital is a modern institution, consisting of an administration block, 4 ward blocks, laundry and other necessary premises.

The ward blocks contain two main wards and two side wards each. The accommodation is for 60 beds.

During the year, 215 cases were admitted, a slight increase over 1919 and twice as many as in 1918. The total is the highest since 1916 (390).

Among the cases of Scarlet Fever admitted were 5 from the Preston Royal Infirmary, who were also suffering from compound fracture of the Tibia (1), Tuberculous Glands (2), and Empyæma (2). The case admitted as suffering from Encephalitis Lethargica was sent in as Enteric Fever.

Seven of the ten deaths which occurred in the Hospital were due to Diphtheria. The case mortality being 7 per cent. of those admitted.

TABLE VIA.

Disease	In Hospital Dec. 31, 1919	No. Notified	Admitted		Dis- charged	Deaths	Remaining Dec. 31, 1920.
			No.	Per cent of Notified			
Typhoid Fever	1	18	15	83	14	1	1
Scarlet Fever	18	158	98	62	101	2	13
Diphtheria	11	172	100	58	98	7	6
Encephalitis Lethargica.....	0	...	1	...	1	...	...
Erysipelas	0	31	1	...	1	...	...
TOTALS	30	379	215	56	215	10	20

TABLE VIb.

22

Year.	Cost of Food, Patients & Staff.		Cost of Drugs and Dressings.	Coal and Slack.	Salaries.	Total Expenditure.	Total Cost per Patient, based on Total Expenditure.	Average Number of Patients per day.	Average stay in Hospital.
	Amount.	Cost per person, per day.							
1911 ...	£ s. d. 691 7 7	s. d. 7	£ s. d. 99 10 0	£ s. d. 230 8 11	£ s. d. 492 15 5	£ s. d. 2414 16 11	£ s. d. 5 10 0	46.0	38.2
1912 ...	679 17 0	6 $\frac{1}{4}$	93 13 9	213 3 10	476 14 5	2481 14 9	5 17 7	48.0	41.9
1913 ...	715 5 0	6 $\frac{1}{4}$	91 13 11	238 4 5	489 17 10	2368 5 7	4 10 9	52.4	36.7
1914 ...	788 12 5	6 $\frac{3}{4}$	122 4 2	248 2 10	547 1 2	2835 4 4	6 7 5	55.0	45.3
1915 ...	800 13 1	6 $\frac{3}{4}$	156 9 3	292 3 4	555 9 10	3083 19 3	6 12 8	54.0	42.0
1916 ...	862 11 6	7 $\frac{3}{4}$	181 12 4	326 7 5	584 5 9	3213 13 0	8 4 9	50.0	47.1
1917 ...	617 7 9	10 $\frac{1}{2}$	130 18 11	576 7 6	552 15 4	2932 5 10	16 13 4	17.0	36.0
1918 ...	436 5 10	10 $\frac{3}{4}$	104 14 2	403 3 7	504 2 2	2723 18 4	25 14 0	10.5	36.0
1919 ...	590 19 4	11 $\frac{1}{4}$	145 2 1	435 15 6	659 0 7	3164 6 8	15 7 3	17.0	29.9
1920 ...	990 11 11	1 2 $\frac{3}{4}$	69 11 4	691 2 8	659 0 7			21.4	26.4

(3) LOCAL ACTS, SPECIAL LOCAL ORDERS, GENERAL ADOPTIVE ACTS
IN FORCE IN THE BOROUGH.

Preston Markets Act, 1861.

Preston Improvement Acts, 1869 and 1880.

Preston Corporation Acts, 1900, 1914 and 1921.

Ribble Navigation and Preston Dock Acts, 1883, 1888, 1889, 1890, 1892, 1896
and 1905.

Preston Waterworks Act, 1853 and 1904.

Penwortham Bridge Act, 1912.

The Public Health Acts (Amendment) Act, 1890. Part III.

The Public Health Acts (Amendment) Act, 1907 :—Sections 15, 17, 19, 20, 21,
22, 23, 24, 26, 27, 28, 30, 31 and 33, Part II. (Streets and Buildings).
Sections 34, 35, 36, 37, 38, 43, 44, 45, 46, 49, 50 and 51 Part III.
(Sanitary Provision).

Section 53, 54, 56, 57, 59, 60, 62, 63, 64, 65 66 and 68, Part IV. (Infectious
Diseases).

Part V. (Common Lodging Houses).

Section 79, 81, 85 and 86, Part VII.

Part VIII.

Section 93 and 95, Part X. (Miscellaneous).

Infectious Diseases Prevention Act, 1890.

The Public Libraries Acts.

The Baths and Washhouses Acts.

(4) ARRANGEMENTS FOR CHEMICAL AND BACTERIOLOGICAL WORK.

Examination of specimens of Sputum for the detection of the Tubercle Bacillus,
of Swabs for the Diphtheria Bacillus, and of Blood for the Typhoid Bacillus, are
carried out by the Tuberculosis Officer at the Dispensary, North Road. The number
of specimens examined are as follows :—

Specimens of Sputum examined for Tubercle Bacilli ...	455
Throat Swabs examined for Diphtheria Bacilli	231
Specimens of blood examined for diagnosis of Typhoid	
Fever	16
Other miscellaneous specimens	32
	—
Total	734
	—

The Chemical Analysis of Water and the analysis of Milk and other foods under
the Sale of Food and Drugs Acts, is carried out by Mr. W. H. Roberts, of Liverpool.
The examination of Water, Milk and other foods with regard to Bacterial impurity,
by the Public Health Laboratory, Manchester,

VII.—Housing.

There has been no material change in the housing conditions of the people in the past year.

There is very little information available as to present conditions. As far as figures will serve to give a true impression, I offer the following abstracted from the 1911 Census.

1. Proportion per 1,000 tenements of tenements of various sizes :—

	1 Room	2 Rooms	3 Rooms	4 Rooms	5 Rooms	6 Rooms	7 Rooms	8 Rooms	9 Rooms	10 Rooms (or more)
Total of County Boroughs ...	27	79	144	265	214	151	53	29	15	23
Preston ...	3	11	128	375	333	88	31	12	16	13

Briefly stated, over one-third of the houses of Preston have four rooms and one-third have five rooms; also Preston has a distinct advantage over the total of County Boroughs in the possession of a larger proportion of reasonably sized tenements.

2. Proportion per 1,000 persons enumerated in tenements consisting of various numbers of rooms :—

	1 Room	2 Rooms	3 Rooms	4 Rooms	5 Rooms	6 Rooms	7 Rooms	8 Rooms	9 Rooms	10 Rooms
Total of County Boroughs ...	12	58	135	262	233	163	58	32	17	30
Preston ...	1	6	105	343	370	105	34	14	7	15

This bears out the statement above in that over 70 per cent. of the population are housed in 4 and 5 roomed houses, and that the proportion of persons reasonably housed is much higher than in the total of County Boroughs.

3. Average number of occupants per room in tenements of various sizes :—

	1 Room	2 Rooms	3 Rooms	4 Rooms	5 Rooms	6 Rooms	7 Rooms	8 Rooms	9 Rooms	10 Rooms
Total of County Boroughs ...	2.00	1.61	1.38	1.09	0.96	0.79	0.69	0.62	0.57	0.98
Preston ...	1.76	1.11	1.21	1.01	0.98	0.88	0.70	0.63	0.57	0.97

That is to say, the average number of persons living in a four roomed house in Preston was 4.04, as against 4.36 persons in the total of the County Boroughs, and that the comparative numbers in the case of the five roomed houses were 4.90 and 4.80 respectively. Also that the number of the more unsuitable tenements consisting of 3 rooms and less is not only smaller, but that the density of the population inhabiting them is less in Preston than in the County Boroughs as a whole.

A reference to the Census figures of population in previous Census years shew that the population increased by 4.1 per cent. in the period 1861—1871, 10.6 per cent. in the period 1871—1881, 11.4 per cent. in the period 1881—1891, 5 per cent. in the period 1891—1901, 3.6 per cent. in the period 1901—1911 and the probable rate of increase in the 10 years which have elapsed since 1911 is 4.3 per cent. That is to say, the increase of population received its most marked impulse in the years 1871—1891, which period corresponds with the most rapid expansion of building, about 4,300 houses, and since 1891 about 3,100 being erected. For the most part the houses referred to are roomy and well-built, the streets are well laid out and properly drained and paved. The outer ring of the town, especially to the North, East and West, has been practically entirely built in the present century. The central part of the town, however, contains many dwellings which are undesirable in that they are small, dark, delapidated and crowded together. It was estimated by my predecessor that there were 806 houses to be displaced by the clearance of unhealthy areas and 136 to replace other houses which cannot be made fit for human habitation.

My enquiries lead me to assume that the pre-war practice of the average owner was to go over his property and carry out the necessary repairs at intervals of five years. This frequency increased in an inverse ratio to the quality of the houses, and in

the worst type of property a thorough overhaul is required about every three years. The kind of work done related to roofs, chimneys, spouting, pointing of brickwork, repairs to eaves and down spouts, to wash boilers and sinks, to the flagging of kitchens and yards and to plaster work, which, with other repairs, might cost the owner a varying sum, but probably in the neighbourhood of £12—£15 per house (pre-war). From a date early in the war until about the beginning of 1920 this repair work was in abeyance and therefore the natural process of decay, which is going on in every house, has proceeded unchecked in some cases for ten years. The position cannot be better summed up than by stating that we are 5 years behind with our repairs. Repair work at the present time is being carried out as fast or even faster than during the pre-war period,, notwithstanding the great handicap imposed by high cost and shortage of men and materials. With the gradual improvement of the trade position I anticipate a rapid acceleration in the rate of progress.

The bulk of the work is done either on the initiative of the owner or on his attention being called to the necessity of undertaking repairs by means of a letter or informal notice from the Health Department. In those cases where a formal notice is required, the Nuisance Sections of the Public Health Act, 1875 (46, 91 and 94) are used, and supplementing them, the Special Sanitary Clauses in the Preston Corporation Acts dealing with the flagging of yards and the provision of dustbins. A reference to the tabular statement of the work of the Sanitary Inspectors and to the Appendix shews the work done under their respective heads.

With regard to the unsatisfied demand for new houses. The growth of population since the last Census is probably roughly 500 persons per annum, requiring roughly 100 new houses a year. For the five years before the war an average of 156 houses was erected, and, allowing for war losses and the marked decrease in the Birth Rate during the war, producing a decline in the rate of increase of population in the latter half of the decade, it is probable that 100 new houses per year since 1914 would meet the demand caused by the natural increase of population.

The Housing Committee in their Scheme are erecting 221 houses on the Ribbleton Site and 276 on the Holme Slack Site. These houses, with the 87 houses completed between 1915 and 1918, go far to satisfy this demand.

The Housing Committee's Estates are well laid out and the houses are admirably designed from the aesthetic, utilitarian and hygienic points of view. The rents agreed upon by the Council are as follows :—

Site.	Type.	ACCOMMODATION.				Inclusive Rent.	
		Non-Parlour & 2 Bedrooms.	Non-Parlour & 3 Bedrooms.	Parlour and 3 Bedrooms.	Parlour and 4 Bedrooms.		
Holme Slack ...	" A "	6	...	...	...	s. d.	
Ribbleton ...	" A "	6	...	...	...	12	4
Holme Slack ...	" A "	...	98	...	...	13	10
Ribbleton ...	" A "	...	74	...	...	14	0
Holme Slack ...	" B "	...	...	147	...	16	11
Ribbleton ...	" B "	...	...	116	...	17	2
Holme Slack ...	" B "	...	...	...	20	18	7
Ribbleton ...	" B "	...	...	...	18	18	10

It is highly probable that all these houses will be occupied by the end of 1921.

In the return to the Housing Commissioner made in October, 1919, 981 tenements housing 9,050 persons (roughly 8 per cent. of the population) are the figures given as representing the amount of overcrowding. To house these people properly would require an additional 944 houses, and in addition, there were 628 houses each intended for one family which were housing two or more families. Adding to these the houses required for the replacement of unfit houses gives a number, the magnitude of which has only to be stated for the seriousness of the problem to be realised.

HOUSING CONDITIONS.—STATISTICS.

I.—GENERAL.

Estimated population ...	...	...	...	...	...	...	121,950
General Death Rate ...	...	...	...	...	...	...	13.6
Death Rate from Tuberculosis...	...	...	...	...	...	...	1.29
Infantile Mortality ...	...	...	...	...	...	...	101
Number of dwelling-houses of all classes ...	...	...	...	...	...	...	27,869
Number of working class dwelling-houses ...	...	...	...	...	...	...	24,800
Number of new working-class houses erected	...	...	...	...	...	...	None.

II.—UNFIT DWELLING-HOUSES.

1.—INSPECTION.

Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)	6,744
Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910.	Nil.
Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation ...	None reported.
Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found to be in all respects reason- ably fit for human habitation	6,111

2.—REMEDY OF DEFECTS WITHOUT SERVICE OF FORMAL NOTICES.

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their officers ...	5,897
--	-------

3.—ACTION UNDER STATUTORY POWERS.

(a). Proceedings under section 28 of the Housing, Town Planning, &c., Act, 1919.

Number of dwelling-houses in respect of which notices were served requiring repairs	Nil.
Number of dwelling-houses which were rendered fit—	
(a) by owners	Nil.
(b) by Local Authority in default of owners	Nil.
Number of dwelling-houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close	Nil.

(b). Proceedings under Public Health Acts.

Number of dwelling-houses in respect of which notices were served requiring defects to be remedied	214
Number of dwelling-houses in which defects were remedied—	
(a) by owners	214
(b) by Local Authority in default of owners	Nil.

(c). Proceedings under sections 17 and 18 of the Housing, Town Planning, &c., Act, 1909.

Number of representations made with a view to the making of Closing Orders	Nil.
Number of dwelling-houses in respect of which Closing Orders were made	Nil.
Number of dwelling-houses in respect of which Closing Orders were determined, the dwelling-houses having been rendered fit	Nil.
Number of dwelling-houses in respect of which Demolition Orders were made	Nil.
Number of dwelling-houses demolished in pursuance of Demolition Orders	Nil.

III.—UNHEALTHY AREAS.

Areas represented to the Local Authority with a view to Improvement Schemes under (a) Part I., or (b) Part II., of the Act of 1890... ..	Nil.
Number of houses not complying with the building byelaws erected with consent of Local Authority under section 25 of the Housing, Town Planning, &c., Act, 1919	Nil.
Staff engaged on housing work with, briefly, the duties of each officer :—	

Medical Officer of Health.

Sanitary Inspector, No. 1 District.

Sanitary Inspector, No. 2 District.

Sanitary Inspector, No. 3 District.

Sanitary Inspector, No. 4 District.

The School Medical Service Report

For the Year 1920.

Medical Services Sub-Committee :

ALDERMAN HUBBERSTEY, Chairman.

COUNCILLOR SNELHAM.

E. P. BERRY, ESQ.

COUNCILLOR HERBERT.

H. HOWARTH, ESQ.

COUNCILLOR MRS. PIMBLETT.

MISS HOYLE.

THE REV. E. PYKE.

MRS. HINDMARSH.

I.

Officers :

Superintendent School Medical Officer : F. A. SHARPE, M.D., B.S., D.P.H.

School Medical Officer : Miss E. ROSE, M.B., Ch.B.

Dental Surgeon : E. HUTSON, L.D.S.

School Nurses :

Miss Marsden.

Miss Butterfield.

Mrs. Whalley.

Dental Nurse :

Miss Whitehead.

TITHEBARN STREET,

PRESTON,

July 12th, 1921.

TO THE MEMBERS OF THE EDUCATION COMMITTEE.

MR. CHAIRMAN, LADIES AND GENTLEMEN,

In presenting a short Report on the work of the School Medical Service, for the year 1920, I should like to take the opportunity of calling your attention afresh to the very great importance of the work. It is admitted on all hands that the health of the children is of vital importance and there is no better method of ascertaining the facts than the systematic examination and re-examination of the school children.

A perusal of the report will shew that your Committee is doing a great deal of ameliorative work among children, yet it is but a small part of that which must be done if the ideal of providing each child with opportunities of full physical and mental self-expression in their highest possible forms is to be realised.

It is unfortunately not the time to lay emphasis on the supreme importance of improving the child's environment in the homes or schools, as nothing can be done in this respect which would have an appreciative effect upon the health of the children without the expenditure of great sums of money. I can, however, refer to the necessity of improving the School Medical Service by the provision of better premises for the Minor Ailments Treatment Centre, the extension of the Open Air School and the re-organisation of the Dental Department on lines already brought before you (Report of the visit of Mr. Councillor Snelham and the School Medical Officer to Dental Clinic of the Derbyshire County Council, December 2nd, 1920) in such a manner as to enable every child to be examined and, if necessary, treated in each year of its school life.

During the short period of the year for which I have held office, I have been much encouraged by the sympathetic and helpful attitude of your Committee, and I should also like to acknowledge the very great value of the assistance and advice freely given by your Director of Education, Mr. A. J. Berry, and his staff.

I am,

Your obedient servant,

F. A. SHARPE,

School Medical Officer.

2.—CO-ORDINATION.

Visiting under the Child Welfare Scheme embraces children up to 5 years of age.

There has recently been completed a survey of the health of the children born in 1916 and the results of this survey are now available for the School Medical Service.

The School Medical Service in relation to Public Elementary Schools.

3.—SCHOOL HYGIENE.

(a). Full information as to the Elementary Educational facilities available may be found in the Draft Scheme of the Local Education Authority under the provisions of Section 1 of the Education Act, 1918, which was presented to the Authority by the Director in November, 1920.

A summarised statement of the accommodation available is as follows :—

	Number of Schools.	Recognised Accommodation.	Average attendance for year ended 31st March, 1920.
Church of England	20	13396	7152
Roman Catholic	9	9984	5719
Nonconformist	7	3178	2372
Council	3	1938	1490
Total	39	28496	16733

The hygienic condition of the Elementary Schools is a matter which receives the continuous attention of the Committee. The bulk of the schools are “ non-provided ” and the Managers are now experiencing a period of difficulty due to stationary or diminished income and greatly increased cost of labour and materials. During the war the schools received attention only to urgent repairs and alterations.

A recent survey of the sanitary condition of the schools shewed that the main remediable defects were those relating to the conditions of the eaves and down spouts; ventilators, yard surface and the old-fashioned insanitary type of closet.

The difficulty imposed upon the Committee by reason of the architectural style and site of some of the older Schools is receiving careful attention.

During the year alterations and repairs have been carried out at the following Schools :—

MIDSUMMER.

St. Wilfrid's Fox Street, Roper's, St. Andrew's Girls and Infants, St. Michael's, St. Augustine's, St. Ignatius' Boys and Higher Grade, St. Joseph's Girls, St. Stephen's, St. Mary's C.E., St. Thomas'. Holy Trinity, St. Mark's, St. Paul's, Sacred Heart, Emmanuel, St. Mary's Street Wesleyan, Hincksman Mixed (main room only), Park Secondary.

CHRISTMAS.

Talbot Infants, Christ Church Infants, St. Joseph's Boys and Infants, St. Matthew's Girls, St. Matthew's Branch, St. Jude's, St. Luke's Infants, Deepdale Council.

4.—MEDICAL INSPECTION.

(a). The ages of children submitted for Routine Inspection have been as before, the Entrants being 5 or 6 years old, the Intermediate Group 8 years, and the Leavers 12 or 13 years old. The Medical History Cards are filled up by the teachers, and one week's notice is given before the date of the Inspection. The Head Teacher is generally present during the Examination, which, where possible, takes place in one of the Class-rooms. The Schools are visited 4 times each year.

(b). During 1920 a special effort was made to examine every Defective Child attending Borough Schools, and a card index was prepared showing the nature of defects with suggestions for their treatment and education. These are being actively followed up by the School Nurses and treatment, where necessary, arranged for.

(d). As the teachers are informed beforehand of the date of the inspection, the work is carried on with little or no disturbance of school arrangements. In some of the schools where all the rooms are required for teaching purposes, there is, of course, a certain amount of trouble occasioned by the necessity of re-arranging the classes.

5.—FINDINGS OF MEDICAL INSPECTIONS.

(a). UNCLEANLINESS.

There is, on the whole, a tendency for greater general cleanliness on the part of the school children, although the condition of the hair still leaves a good deal to be desired. The mothers are not quite so averse to hair-cutting as formerly, and allow their children to attend the Clinic willingly. One however seldom sees the very bad cases of dirty heads which used to be all too common. The number of home visits re cleanliness of heads during recent years is as follows :—

1920.	1919.	1918.	1917.	1916.
2446	1732	1150	1145	1165

(b). MINOR AILMENTS.

The Minor Ailments remain much the same from year to year. Scabies has been very troublesome, but the cases are becoming much fewer. Really bad cases of Impetigo are much rarer than they used to be, owing probably to the promptness with which this disease is treated.

(c). TONSILS AND ADENOIDS.

Rather fewer cases of Enlarged Tonsils and Adenoids have been noted. Fortunately, parents are beginning to learn the harm caused by these defects, and are not so disturbed by the idea of an operation. This being so, one does not often come across a very bad case in an older child. The number of children suffering from Enlarged Tonsils and Adenoids who were referred for treatment during recent years is as follows :

1920.	1919.	1918.	1917.	1916.
296	323	282	296	380

(d). TUBERCULOSIS.

During Routine Inspection, a considerable number of children are suspected of Phthisis and are accordingly sent on to the Tuberculosis Officer. Tubercular Skin and Joint troubles are comparatively few, and Glandular infections in most cases not severe. The numbers of children suspected of Phthisis are as follows :—

1920.	1919.	1918.	1917.	1916.
69	74	52	80	79

(e). SKIN DISEASE.

The skin diseases have been, if anything, less severe than in other years. There have been a fair number of Ringworm cases and the usual amount of Seborrhoea, but bad cases of Alopecia have been fewer.

(f). EXTERNAL EYE DISEASE.

Blepharitis is naturally the commonest external eyes disease found during Routine Inspections, the other forms usually hindering the children from attending school.

(g). VISION.

The Vision cannot be said to be good. There were 627 children found to be defective, and although many of these were, no doubt, young and perhaps nervous, still too many were genuine. The numbers of children referred for treatment who were suffering from Defective Vision were as follows :—

1920.	1919.	1918.	1917.	1916.
627	615	810	616	667

(h). EAR DISEASE AND HEARING.

Cases of Ear Disease are still more numerous than one would wish. More attention is being given to them and it is hoped that matters will improve during the next year. The numbers referred for treatment for the last 5 years is as follows :—

1920.	1919.	1918.	1917.	1916.
66	50	62	52	40

(i). DENTAL.

The Dental Inspections carried out by Mr. Hutson, L.D.S., at the schools include the examination of all children 6 to 8 years of age who have not been previously examined. As the previous inspection at any one school took place four years ago, the examination resolves itself into that of the children age 6 to 8 and 10 to 12. There are a few children who were previously examined at entrance at $5\frac{1}{2}$ years who have been re-examined at $9\frac{1}{2}$ years. Where treatment is required the parents are notified and requested to allow the children to attend the Dental Clinic, which is held in rooms in the Miller Arcade, adjacent to the School Medical Clinic. Conservative treatment is practised wherever possible, a reference to the table showing the work done will show that over 6,000 Stoppings and Dressings were performed as against 400 Teeth extracted. There are two operating chairs at the Clinic. The Dental Nurse being sufficiently experienced to undertake the more accessible fillings. All drilling and excavating is carried out by the Dental Surgeon.

A complete scheme for the ascertainment and treatment of Dental Defects should enable at least an annual inspection and treatment of every child attending the schools. Dental Sepsis and Caries play such an important part in the production of ill health that every endeavour should be made to make the service as complete in this respect as possible. A most promising line of advance is the engagement of generally trained Nurses as Dental Dressers and their training by the Dental Surgeon. Schemes of this kind have been in operation in various parts of the country and have proved successful.

A marked improvement is to be noted with regard to the teeth, owing, no doubt, to the good work which has now been going on for some years at the Dental Clinic. The older children are gradually learning the value of good teeth and also how to take care of them.

(j). CRIPPLING DEFECTS.

Tubercular affections and Infantile Paralysis are the causes of the greatest number of crippling defects. Rickets and Congenital troubles make up the bulk of the rest, but there are comparatively few cases of very severe crippling from any of the causes. The numbers of children attending Public Elementary Schools with Crippling Defects during recent years were as follows :—

1920.	1919.	1918.	1917.	1916.
54	46	42	36	40

6.—INFECTIOUS DISEASE.

The district has been singularly free from Infectious Disease, both notifiable and non-notifiable, for some years past. Under the system in operation in the Borough it is the duty of the Head Teacher to report the occurrence of and the suspected occurrence of Infectious Diseases among the scholars to the Director of Education. These cases are visited by the staff of the Medical Officer of Health and the results of these visits transmitted through the Director to the Head Teacher. Information as to the period of necessary exclusion and the actual cause of absence in suspected cases is also given. Daily information collected from the records of the Sanitary Inspectors, Health Visitors, Tuberculosis Nurses and School Nurses is prepared and collated with the information in possession of the School Attendance Officers.

There has been no epidemic of any disease during the year, and it has not been necessary to resort to school closure.

TABLE A.

SCHOOL.	Typhoid Fever	Scarlet Fever	Measles	Whoop- ing Cough.	Diph- theria.	Chicken Pox.	Mumps.	Ringw'm Eczema, Sore Eyes Heads, &c.
Parish Church	I	...	...	...
St. James'	I	...	...	...	...	...
St. Augustine's	I	I	...	...	...	I	...
St. Saviour's	I	...	I	...	...	3	I
Grimshaw Street
St. Stephen's	6	I	I	4	...	I	10
Christ Church	3	...	...	I	...	...	...
Hincksman Memorial	8	...	...	...	...
St. Mary's R.C.	2	...	4	I	8
St. Wilfrid's
St. Michael's	I	2	I	I	...	...	4	4
Sacred Heart	2	...	...	...	...
Ashton Wesleyan	5	8	...	...	I	...	...
St. Andrew's	2	20	3	3	4	...	3
Roebuck Street Council	4	I	I	...	...	...	15
St. Walburge's	3	...	...	I	...
St. Mark's	2	I	I	I	...	...	...
St. Peter's	2	...	I	...	2	3	3
Emmanuel	I	I	...	...	...	...	...
Plungington Road National	I	...	...	I	...	...	I
Eldon Street Council	I	...	...	...	...	...	...
Moor Park Wesleyan	I	...	4	3	I	...	...
English Martyrs' Elementary	2	I	5	...	3	3	3
St. Jude's	3	...	2	...	I	2	6
Park Secondary	2	2	...	...
Deepdale Council	I	...	2	...	2	...	I
St. Paul's	2	...	I	4	I
St. Ignatius' Elementary	I	2	I	I	17	7	...
All Saints'
Holy Trinity	3	...	2
Orchard U.M.F.C.	I	...	...	...	...	...	...
St. Luke's	3	2	2	...	...	5	3
St. Joseph's	I	7	16	I	9	4	9
St. Matthew's	14	4	...	I	2	I
St. Matthew's Branch
Ribbleton Avenue	7	11	...	I	I	7
St. Mary's National	I	2	...	2	...	I	...
St. Mary Street Wesleyan	I	...	...	...	3	...
Open Air School	3	...
	I	45	71	73	20	52	49	78

TABLE B.

	0-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10 & Over	Total
Typhoid Fever	1	...	...	...	1
Scarlet Fever	1	3	12	9	5	2	5	8	45
Measles	1	5	19	24	9	4	4	2	3	71
Whooping Cough	4	7	32	12	8	2	6	2	73
Diphtheria	2	5	2	4	2	...	...	5	20
Chicken Pox	6	4	21	6	5	5	1	4	52
Mumps	1	10	11	4	5	3	15	49
Ringworm, Eczema, Sore Eyes, Head, etc.	2	8	13	25	11	6	2	11	78

7.—FOLLOWING UP.

When a letter has been written to a parent calling attention to any defect needing treatment, the Clerk makes out a card with the name of the child, the age, address, school and defect, written on the front of it. This card is given to the Nurse in whose area the school is, and she calls on the parent to see if anything has been done, and to use persuasive power if nothing has been done. She may need to visit several times, and on the back of the card she records the dates and results of her visits, also making a note of the kind of treatment obtained for the defect. Should there be no treatment given by the time the School Doctor next visits the school, the child is again inspected and the result written on the card along with the date of re-inspection. The number of "Following Up" visits made by the Nurses during recent years are as follows :—

1920.	1919.	1918.	1917.	1916.
4080	3528	4113	2811	3582

8.—MEDICAL TREATMENT.

(a). MINOR AILMENTS.

The Minor Ailment Treatment Centre, situated in Miller Arcade, is open in the morning from 9 to 12-30, and in the afternoon from 2 to 4-30. The School Medical Inspector and three Nurses are in attendance from 9 to 10-30. From 10-30 to 12-30 there are two Nurses only. In the afternoon the services of one Nurse are available. The premises are small and not designed for the purpose, and it is hoped are of a temporary character.

Treatment at Minor Ailments Treatment Centre.

Cases Treated				Attendances			
2673				29,605			
				Defecis referred to Centre.	Treated and Discharged during the year.	Remaining on the books Dec. 31st, 1920.	
Blepharitis	...	...	...	407	...	354	36
Otorrhoea	...	...	...	273	...	204	65
Deafness	...	...	...	7	...	3	3
Enlarged Glands	...	...	...	46	...	27	16
Eczema	...	...	...	17	...	13	3
Impetigo	...	...	...	604	...	555	41
Chilblains	...	...	...	6	...	4	2
Warts	...	...	...	17	...	11	6
Alopecia	...	...	...	7	...	5	2
Ringworm	...	...	...	160	...	146	10
Seborrhoea	...	...	...	4	...	4	—
Dirty Heads	...	...	...	21	...	20	1
Septic Sores	...	...	...	1093	...	1019	60
Ganglion	...	...	...	2	...	—	—
Cyst	...	...	...	1	...	1	—
Injury to Arm...	...	...	...	2	...	2	—
Injury to Leg...	...	...	...	2	...	2	—
Injury to Eye...	...	...	...	1	...	1	—
Injury to Face	...	...	...	2	...	2	—
Injury to Knee	...	...	...	2	...	2	—
Injury to Head	...	...	...	4	...	4	—
Injury to Hand	...	...	...	2	...	2	—
Scabies	...	...	...	33	...	21	9
Dog Bite	...	...	...	6	...	6	—
Herpes	...	...	...	6	...	6	—
Sting	...	...	...	1	...	1	—
Boils	...	...	...	1	...	1	—
Rash	...	...	...	1	...	—	1
Totals	...	...	...	2728	...	2416	255

13 Advised to attend Preston Royal Infirmary. 42 Treatment by own Doctor.

Left School ... 2

Cases examined by the Inspecting Medical Officer in regard to which advice only was given :—

Goitre	1	Laryngitis	1
Swollen Face	1	Heart	2
Herpes	1	Indigestion	2
Whooping Cough	1	Boils	2
Chicken Pox	14	Defective Speech	1
Mumps	11	Itch	1
Tuberculosis	8	Enlarged Tonsils and	
Anaemia	7	Adenoids	6
Debility	47	Dyspepsia	1
Rheumatism	11	St. Vitus Dance	4
Chorea	4	Enlarged Glands	16
Headache... ..	2	Eczema	1
Epilepsy	4	Impetigo	2
Defective Vision	6	Ringworm	3
Deafness	2	Seborrhoea	9
Blepharitis	1	Scabies	41
Infantile Paralysis	1	Rash	3
Bronchitis	7	Stye	1
Sore Throat	16	Injuries	6
Malnutrition	2	Influenza	9
Diarrhoea	2	Catarrh	4
Toothache	2	Jaundice... ..	1
Glossitis... ..	1	Quinsy	1
Urticaria	1	Psoriasis	1
Total	271		

Visits, re Physical Defects, etc.

Home Visits, following up defectives	4080
Home Visits, re Cleanliness of Heads	2446
Children inspected, re Cleanliness of Heads	20785
School Visits	434

The rapidly increasing growth of the work is shown in the following Table :—

	1920.	1919.	1918.	1917.	1916.
Number treated ...	2673	2381	1846	1581	1272

(b). TONSILS AND ADENOIDS.

Tonsils and Adenoids are treated at the Infirmary (cases being admitted by special School "Recommend").

Among the 296 children referred for treatment in 1920, there were 43 who had operations done at the Infirmary, and 23 cases were operated upon by Private Practitioners. There were 91 cases which received non-operative treatment and a number of cases were found on re-inspection to need no further attention, being greatly improved.

A reference to the Report of the Secretary of the Royal Infirmary, on page 23 will show that in addition to the number referred for treatment in 1920 and operated upon in that year, there was a large number (over 200) of children operated on for this condition. These were referred for treatment in 1919 and previous years.

(c). TUBERCULOSIS.

Cases of Tuberculosis are referred to the Tuberculosis Officer. The question of treatment and exclusion from School is decided by him. A reference to the Report of the Tuberculosis Officer will show the amount of work undertaken under this head. 69 Cases in all were referred to Dr. Walker, in none of whom was the disease definitely diagnosed. The Scheme of the Borough Council for the treatment of Tuberculosis includes the provision of 2 Surgical Beds at the Preston Royal Infirmary, 4 Surgical Beds at the Heswall Sanatorium for children. Sanatorium treatment for early Pulmonary cases is provided at the Freshfield Sanatorium and at the Chestnuts Sanatorium at Preston, for advanced cases. In addition, 15 beds for delicate or Pre-Tubercular children are found at the Ormerod Home, St. Annes, and Reynold's Home, Lytham, during the winter months. This work is a continuation of the excellent charitable work carried out by the Police Fund, administered by the Chief Constable, during the summer months. The remaining source of treatment for pre-tubercular children is at the Open Air School, to which a reference is made later in this report.

Children of School age sent to :—

	Boys	Girls	Total
Heswall	1	1	2
Freshfield	5	15	20
Lytham	11	15	26
St. Annes	12	14	26
Chestnuts	1	1	2

Mr. Gibson supplies the following particulars relating to site of disease of children admitted to the Preston Royal Infirmary from the Borough in 1920, suffering from Tuberculosis :—

Glands of Neck	...	...	...	...	10
T. B. Hip	...	...	...	...	6
T. B. Peritonitis	...	...	...	...	4
T. B. Knee	...	...	...	...	2
T. B. Abscess of Neck	...	...	...	...	2
T. B. Abscess of Chest	...	...	...	...	1
T. B. Abscess of Rib	...	...	...	...	1
T. B. Glands, Sub. Maxillary	...	...	...	...	1
T. B. Testicle	...	...	...	...	1
T. B. Urinary Tract	...	...	...	...	1
T. B. Meningitis	...	...	...	...	1

— 30

Children of school age who are given treatment in the Massage and Electrical Department :—

Massage and Electricity	...	...	...	...	3
Massage and Farradism	...	...	...	...	1
Massage	...	...	...	...	8

— 12

(d). SKIN DISEASE.

Skin Diseases are treated in many cases at the School Clinic. As mentioned before, Scabies was for a time very troublesome, but most other types have yielded well to treatment. The Infirmary is available for cases of Ringworm and Lupus, and 3 and 10 cases respectively have been treated during the year.

(e). EXTERNAL EYE DISEASE.

The External Eye Diseases have received Clinic treatment mainly. Any case needing expert advice has been sent on to the Infirmary with the usual "Recommend."

(f). VISION.

Cases of defective vision, if unable to afford private treatment, are sent on to the Infirmary. It is still somewhat difficult to get people to understand the importance of having the eyesight attended to, nearly one-third of the defective cases having had no treatment whatever.

Year	Number referred for Treatment	Number Treated
1920	555	356
1919	615	373
1918	810	423
1917	616	401
1916	667	402

(g). EAR DISEASES AND HEARING.

Many of the cases of ear disease are attended to at the Clinic, but the more serious cases are sent on to the Infirmary if not attended privately.

(h). DENTAL DEFECTS.

The methods employed for the treatment of Dental Defects have been referred to under the heading 5 (i), see page 9. The work done is set out in the following table, the more prominent features are the facts that of 2,597 children examined, 1,531 or 59 per cent. required treatment, 31 refused treatment, and 112 attended their own Dentist. 1,334 made 3,515 attendances or 2.6 attendances per head. Of the 433 tooth extractions 357 were casuals, that is to say, children who were sent by parents or by the teachers to the Clinic for treatment on account of pain or abscess. A comparison with the previous years during which the Clinic has been in operation, shows that the number of children examined is, with the exception of 1919, fairly stationary and that the number of children attending the Clinic and the number of treatments given is very much higher than in any previous year.

ANNUAL REPORT OF THE SCHOOLS' DENTAL OFFICER.

For the Period January 5th to December 31st, 1920.

SCHOOLS VISITED	No. of Schools inspected (10).	Number of Children Examined at School	No. Treatment Required	Number requiring Treatment.	Number accepted Treatment.	Number refused Treatment.	No Information available	Own Dentist.	Particulars of Attendances and Work at Dental Clinic.					
									Number attended Clinic	No. of Actual Attendances at Clinic	No. of Teeth Extracted	No. of Stoppings	No. of Dressings	No. of Scalings
English Martyrs' R.C.....	}	301	186	115	98	4	...	13	...	17	...	28	14	...
Open Air Council School .....									...	35	12	16	38	...
St. Thomas' C.E.....		301	186	115	98	4	...	13	92	329	3	385	346	...
St. Wilfrid's R.C.		75	43	32	30	...	...	2	33	134	3	155	122	...
Open-Air Council School		59	15	44	41	3	...	...	51	200	41	134	167	...
English Martyrs' R.C		91	60	31	17	4	...	10	23	63	...	62	55	...
Moor Park Wesleyan		213	82	131	98	5	...	28	93	235	2	314	287	2
Eldon Street C.S.....		218	90	128	115	3	...	10	101	353	3	423	416	2
Emmanuel C.E.		312	145	167	136	4	...	27	138	461	2	467	457	...
Roebuck Street C.S.		245	117	128	118	1	...	9	112	310	2	364	323	1
The Talbot R.C.		426	202	224	206	5	...	13	202	614	8	619	547	3
St. Peter's C.E.		168	77	91	66	2	23	...	...	...	...	...	...	...
Casuals examined at Dental Clinic		489	49	440	440	...	...	...	489	764	357	80	387	...
TOTALS	...	1920	1066	1531	1365	31	23	112	1334	3515	433	3047	3159	8
do.	...	1919	870	1069	986	26	23	34	1052	2442	497	1976	2238	4
do.	...	1918	171	1486	1278	102	52	54	1287	1976	437	2035	1650	12
do.	...	1917	353	1470	1268	103	27	72	1116	2044	683	1301	1762	43
do.	...	1916	1428	1340	1234	46	10	56	1220	2388	771	2084	2480	105

9.—OPEN AIR EDUCATION.

(a). PLAYGROUND CLASSES.

The Director of Education informs me that there have been no further developments of playground classes during the past year.

(e). OPEN AIR SCHOOL.

The Moor Park Open Air School has now been open for a year and a half, and the encouraging results obtained make one wish it was much larger, so as to take in the many children now on the waiting list. Considering that the children are delicate and in many cases have attended their ordinary schools very irregularly, the average daily attendance has been good. Most of them are very lively and some children who have been previously rather dull and backward, have shown marked improvement in mental ability owing to their increased health. Not only do the good food and rest benefit the children, but the regularity of the meals has its good effect, as in their own homes they are often allowed to eat what and when they like. Great praise is due to the teaching staff and thanks are also due to Mr. Berry, the Director of Education, for his great interest in this school.

The numbers of those who have attended are as follows :—

On the Books January 1st, 1920 ...	...	...	...	56
Admitted, 1920 ...	...	...	...	59
Re-admitted, 1920 ...	...	...	...	15
Discharged, 1920 ...	...	...	...	53
Remaining on Books December 31st, 1920 ...	...	...	...	77

Average Daily Attendance.

Year ending 31st March, 1920 ...	...	...	...	49
Year ending 31st March, 1921 ...	...	...	...	67

The Age and Sex of those admitted.

Age ...	6	7	8	9	10	11	12	13	14	Totals
Male	1	10	10	7	1	4	...	...	33
Female	7	13	13	2	2	2	2	...	41
Discharged—										
Male ...			1	3	6	11	3	1	...	25
Female ...			4	3	7	8	5	1	...	28

The average length of stay at the School of those discharged in 1920, was, inclusive of holidays, 24 weeks.

10.—PHYSICAL TRAINING.

There is at present no Organiser of Physical Training. The last Organiser left in July, 1920, since when the Committee have had no suitable application made to them.

11.—PROVISION OF MEALS.

There have been four centres for the provision of free meals during the year. Only a mid-day meal has been supplied, and the arrangements, cooking, etc., have been under the supervision of a fully-qualified Cookery Mistress. The children are selected by their teachers and the home circumstances are enquired into by the School Attendance Officers. The number of meals supplied and the average weekly attendance at each centre are as follows :—

Centre					Number of meals supplied		Average number of children attending weekly	
Marsh Lane ...	...	...	...	...	14843	...	70
Shepherd Street	...	...	...	...	10259	...	52
Maitland Street	...	...	...	...	4020	...	20
Roebuck Street	...	...	...	...	5559	...	27
Private Centre (open for 2 weeks only)...					12	...	2	
					-----		-----	
				Totals	34693	...	171
					-----		-----	

12.—SCHOOL BATHS.

There are two Swimming Baths available for organised instruction in swimming, the Open Air Bath in Moor Park and Saul Street Baths. 949 Boys and 428 girls among the older scholars from the schools have formed these classes.

13.—CO-OPERATION OF PARENTS.

Now that parents have become accustomed to the Medical Inspection of their children, they do not often attend unless they wish specially to talk of some defect they themselves have observed. There is, on the whole, a growing tendency to have defects speedily seen to, and in cases where there has been delay, the advice of the School Nurses can very often turn the scale in the right direction.

14.—CO-OPERATION OF TEACHERS.

In this area, the teachers are of a very great help during the Medical Inspections. They are able to give valuable information regarding delicate children and are always ready to bring under notice any child with special defect. They are also most helpful in reminding the children when to attend the Infirmary or Clinics, and in some cases, where they think their opinion would carry weight, they visit the homes and advise the parents regarding remediable defects.

15.—CO-OPERATION OF SCHOOL ATTENDANCE OFFICERS.

The School Attendance Officers do not take any part in the Routine Inspection and Following Up work. As regards the Clinic, however, they are of great assistance. Each week they are given the names of children who have failed to attend when told to do so, in order that they may send these children for further treatment or discharge as the case may be.

17.—BLIND, DEAF, DEFECTIVE AND EPILEPTIC CHILDREN.

Every attempt has been made to get into touch with the cases of Defective Children.

(a) They are brought to the notice of the School Doctor by the teachers, the Officers of the Public Health Department and the School Attendance Officers. The School Inspector sees these cases and obtains the necessary particulars as to history, symptoms and physical and mental condition.

(b).

Blind (including partially Blind) attending Certified Schools	Blind Asylum, Liverpool	3 Boys.
	Blind Home, Fulwood	2 Boys.
Deaf and Dumb attending Certified Schools	Royal Cross School, Ribbleson...	2 Girls.
	Do. do. ...	6 Boys.
	Boston Spa	1 Boy.
Mentally Defectives attending Certified Schools	Allerton Priory	1 Girl.
	Pontville	1 Boy.

19.—SECONDARY SCHOOLS.

Prior to October, 1920, Medical Inspection at the Park School had been carried out for some years by private arrangement whereby all free placers were examined on entrance by Dr. Rose—now whole time School Medical Inspector—at a fee of 5s. per examination, and girls reaching 16 years who are desirous of becoming Borough bursars were examined either by Dr. Rose or their own Medical Attendant.

In October, 1920, Dr. Rose was appointed Medical Inspector of the Park School. A weekly examination is held, the intention being to examine every girl in each year of her Secondary School life. I append a copy of the report on the work submitted to the Governors at their Meeting held in April, 1921.

The results of the examination are conveyed to the parents by letter.

There is no following up at the houses of the children; this is unnecessary, as the Head Mistress personally interests herself with the necessary remedial work carried out in every case recommended by the Medical Officer. With the exception of remediable exercises ordered by the Medical Officer and carried out under the supervision of the Gymnastic Instructor, the Local Education Authority do not undertake any responsibility for treatment, and an examination of the results so far achieved shew that this duty may safely be left in the hands of the parents.

The Medical Inspection of the Park School for girls was commenced during the last week in October. Seventy pupils were examined, all entrants, their ages being between 10 and 15 years. All defects noted have had adequate attention, but no statistical report has been obtained. Members of the School Staff have kindly done the necessary clerking and Miss Stoneman, the Head Mistress, has herself seen to the following up work, with the excellent results already stated.

With regard to the Boys' Grammar School, no systematic Medical Inspection has been carried out for the year 1920. Dr. James Walker, Tuberculosis Officer, was appointed School Medical Inspector for the purpose of Medical Inspection at the School in April, 1921. Here again it is intended to examine every boy each year of his Secondary School life. No arrangement for following up or for treatment will be considered until experience shews that it is necessary. No application for the provision of a Medical Service has been made by the Boys' Catholic College nor the Winckley Square Convent School,

21.—EMPLOYMENT OF CHILDREN AND YOUNG PERSONS.

(i) The bulk of the children and young persons are employed in the cotton industry. The conditions are quite satisfactory.

(ii) There is at present no co-ordination with that of the Juvenile Employment Committee.

(iii) The number of children examined re Juvenile Employment during the year was 230.

23.—MISCELLANEOUS.

Thirty Scholarship Candidates were examined, 18 girls and 12 boys. Those with defects were referred to their own Doctors and all obtained the necessary treatment.

Report of work carried out at the Royal Infirmary, relating to the Treatment of School Children for the year ending 31st March, 1921. The total number treated for Eye, Ear, Nose and Throat, and Ringworm complaints was 1,083, an increase of 337 cases as compared with 1919.

Out-patients :—

Refractions and Defective Vision	...	...	656
Eye Diseases	...	...	48
Ear Diseases	...	...	42
Nose and Throat	...	...	14
Tonsils and Adenoids	...	...	27
			— 787

In-Patients :—

				Operations.	Other Treatment.
Tonsils and Adenoids	...	...	222	...	1
Eye	...	...	12	...	13
Ear	...	...	8	...	4
Nose and Throat	...	...	8	...	1
				—	—
				250	...
					19— 269
					—
					1056

X-RAY DEPARTMENT.

Out-patients :—

Treated for Lupus ...	...	...	...	...	10
Glands of Neck ...	...	...	...	...	5
Thyroid ...	...	...	...	...	2
Ringworm ...	...	...	...	...	3
Eczema on Face, etc.	...	...	...	...	3
T. B. Dermatitis ...	...	...	...	...	4
					— 27
Total ...					— 1083 —

TREATMENT OF UNCLEANLINESS.

(a). The average number of visits per annum made by the School Nurses to each School ...	3
(b). The total number of Examinations made of Children by School Nurses in the year in the Schools ...	20785
(c). The number of individual children found unclean ...	2988

24.—STATISTICAL TABLES.

TABLE I.—Number of Children inspected 1st January, to 31st December, 1920.

A.—Routine Medical Inspection.

Age.	Entrants.					Total.
	3	4	5	6	Other Ages.	
Boys	816	203	...	1019
Girls	839	233	...	1072
Totals	1655	436	...	2091

Age.	Interme- diate Group	Leavers.					Grand Total
		12	13	14	Other Ages.	Total.	
	8-9						
Boys	956	1085	86	...	...	2127	3146
Girls	1018	976	62	...	...	2 56	3128
Totals.....	1974	2061	148	...	...	4183	6274

	Special Cases.	Re-examinations (<i>i.e.</i> , Number of Children Re-examined).
Boys.....	80	361
Girls	75	320
Totals	155	681

No. of Individual Children inspected ... 6,429.

TABLE II.—Return of Defects found in the course of Medical Inspection in 1920.

DEFECT OR DISEASE.	CODE GROUPS.		SPECIALS.	
	Number referred for Treatment.	Number requiring to be kept under observation but not referred for Treatment.	Number referred for Treatment	Number requiring to be kept under observation but not referred for Treatment.
	2	3	4	5
Malnutrition	2	1	...	...
Uncleanliness Head	13	...	...	...
" Body .....	...	...	...	...
Skin	{ Ringworm, Head	3	...	...
	" Body	1	...	...
	{ Scabies	33	...	...
	Impetigo	9	...	...
	{ Other Diseases(non-tubercular)	31	1	...
Eye	{ Blepharitis	62	...	...
	Conjunctivitis	4	3	...
	Keratitis .....	...	2	...
	Corneal Ulcer .....	...	...	...
	Corneal Opacities	1	...	...
	Defective Vision	462	...	...
	Squint	42	64	...
	Other Conditions	51	8	...
	{ Defective Hearing .....	...	...	...
	Otitis Media	31	7	...
Ear	{ Other Ear Diseases	61	5	...
	
Nose and Throat	{ Enlarged Tonsils	215	18	...
	Adenoids	25	8	...
	{ Enlarged Tonsils and Adenoids	3	1	...
	Other Conditions	26	...	...

Defective Speech .....	...	...	...	...
Teeth:—Dental Diseases .....	...	...	...	...
Heart and Circulation { Heart Disease:— Organic Functional Anaemia	68 1 334	3 4 ...	1 ... 16	.........
Lungs { Bronchitis { Other non-tubercular Diseases	78 20	13 11	1...	......
Tuberculosis { Pulmonary:— Definite Suspected Non-Pulmonary:— Glands Spine Hip Other Bones and Joints.. Skin Other Forms .....	...	...	...	...
	56	4	9	...
	...	1	...	...

Nervous System { Epilepsy Chorea { Other Conditions .....	... 2 1	... ... 1	.........	.........
Deformities { Rickets Spinal Curvature { Other Forms	5 2 9	... ... ...	3 1 1	.........
Other Defects and Diseases	94	14	15	...
Number of Individual Children having Defects which required Treatment or to be kept under observation .....	...	...	...	1723

TABLE III.—Numerical Return of all Exceptional Children in the Area in 1920.

			Boys.	Girls.	Total.
Blind (including partially blind), within the meaning of the Elementary Education (Blind and Deaf Children) Act, 1893.		Attending Public Elementary Schools...	1	3	4
		Attending Certified Schools for the Blind	5	...	5
		Not at School	1	6	7
Deaf and Dumb (including partially deaf), within the meaning of the Elementary Education (Blind and Deaf Children) Act, 1893.		Attending Public Elementary Schools...	1	1	2
		Attending Certified Schools for the Deaf	6	3	9
		Not at School .....	..	...	...
Mentally Deficient.	Feeble Minded.	Attending Public Elementary Schools...	3	1	4
		Attending Certified Schools for Mentally Defective Children.	1	1	2
		Notified to the Local Control Authority by Local Education Authority during the year .....	...	...	...
		Not at School	6	...	6
	Imbeciles.	At School	1	...	1
		Not at School	2	4	6
Idiots.	Not at School	1	2	3	
	Epileptics.		Attending Public Elementary Schools...	5	3	8
		Attending Certified Schools for Epileptics	...	...	...
		In Institutions other than Certified Schools	1	1	2
		Not at School	1	2	3
Physically Defective.	Pulmonary Tuberculosis.	Attending Public Elementary Schools...	27	22	49
		Attending Certified Schools for Physically Defective Children .....	...	...	...
		In Institutions other than Certified Schools	..	...	...
		Not at School	9	13	22
	Crippling due to Tuberculosis.	Attending Public Elementary Schools...	9	4	13
		Attending Certified Schools for Physically Defective Children	1	...	1
		In Institutions other than Certified Schools	..	...	...
		Not at School	2	1	3
	Crippling due to causes other than Tuberculosis i.e. Paralysis, Rickets, Traumatism	Attending Public Elementary Schools...	27	14	41
		Attending Certified Schools for Physically Defective Children.	...	...	...
		In Institutions other than Certified Schools	..	...	...
		Not at School	1	...	1
	Other Physical Defectives, e.g., delicate and other children suitable for admission to Open-Air Schools; children suffering from severe Heart Disease.	Attending Public Elementary Schools	18	23	41
		Attending Open-Air School	57	69	126
		Attending Certified Schools for Physically Defective Children, other than Open-Air Schools .....	...	...	...
		Not at School	7	6	13
Dull or Backward.*		Retarded 2 years	31	22	53
		Retarded 3 years	17	9	26

*Judged according to age and standard.

TABLE IV.—Treatment of Defects of Children during 1920.

A.—Treatment of Minor Ailments

Disease or Defect.	Number of Children.			
	Referred for Treatment.	Treated.		
		Under Local Education Authority's Scheme.	Otherwise.	Total.
Skin—				
Ringworm, head	3	...	3	3
Ringworm, body	1	...	1	1
Scabies	33	2	31	33
Impetigo	9	...	8	8
Minor Injuries .....	...	...	...	...
Other Skin Disease	31	1	30	31
Ear Disease	61	8	40	48
Eye Disease (external and other).	67	8	51	59
Miscellaneous	117	21	62	83

B.—Treatment of Visual Defect.

Number of Children.									
Referred for Refraction	Submitted to Refraction.				For whom Glasses were Prescribed	For whom Glasses were Provided	Recommended for Treatment for other than by Glasses	Received other forms of Treatment	For whom no Treatment was considered necessary
	Under Local Edu- cation Authority's Scheme, Clinic or Hospital	By Private Practitioner or Hospital	Other- wise	Total					
555	195	92	8	295	230	185	19	50	17

C.—Treatment of Defects of Nose and Throat.

Number of Children.				
Referred for Treatment.	Received Operative Treatment.			Received other forms of Treatment.
	Under Local Education Authority's Scheme, Clinic or Hospital.	By Private Practitioner.	Total.	
269	43	23	66	91

TABLE V.—Summary of treatment of Defects as shown in Table IV. (A, B, C, but excluding E.).

Disease or Defect.	Number of Children.			
	Referred for Treatment.	Treated.		
		Under Local Education Authority's Scheme	Otherwise.	Total.
Minor Ailments	322	40	226	266
Visual Defects	555	195	161	356
Defects of Nose and Throat	269	43	157	200
Other Defects	637	44	420	464
Total ...	1783	322	964	1285

TABLE VI.—Summary relating to Children Medically Inspected at the Routine Inspections during the year 1920.

(1). The total number of children medically inspected at the routine Inspections*	6274
(2). The number of children in (1) suffering from defects (other than uncleanliness or defective clothing or footgear) who require to be kept under observation (but not referred for treatment) ...	61
(3). The number of children in (1) suffering from :—	
Malnutrition	2
Skin Disease	77
Defective Vision (including Squint)	555
Eye Disease	67
Defective Hearing	31
Ear Disease	61
Nose and Throat Disease	269
Enlarged Cervical Glands (non-tubercular)	51
Defective Speech ... ..	...
Dental Disease ... ..	...
Heart Disease :—	
Organic	68
Functional	1
Anaemia	334
Lung Disease (non-tubercular)	98
Tuberculosis :—	
Pulmonary—Definite... ..	...
,, Suspected	56
Non-Pulmonary ... ..	...
Disease of the Nervous System... ..	3
Deformities	16
Other Defects and Diseases	94
(4). The number of children in (1) who were referred for treatment (excluding uncleanliness, defective clothing, etc.)	1558
(5). The number of children in (4) who received treatment for one or more defects (excluding uncleanliness, defective clothing, etc.)	1064

*“ Specials ” not included in this Table.

